

OCTOBER, 1905

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Entered at the Postoffice at Chicago as second-class matter, June 1, 1905.

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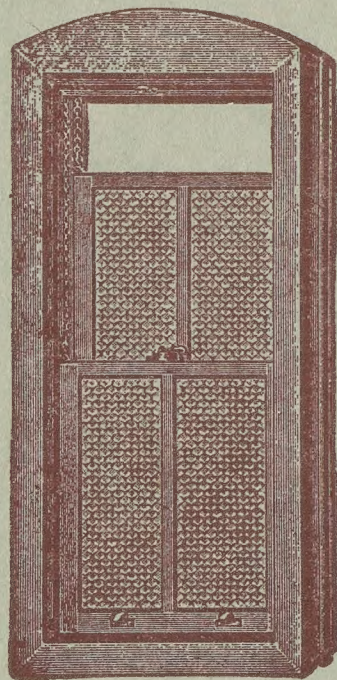
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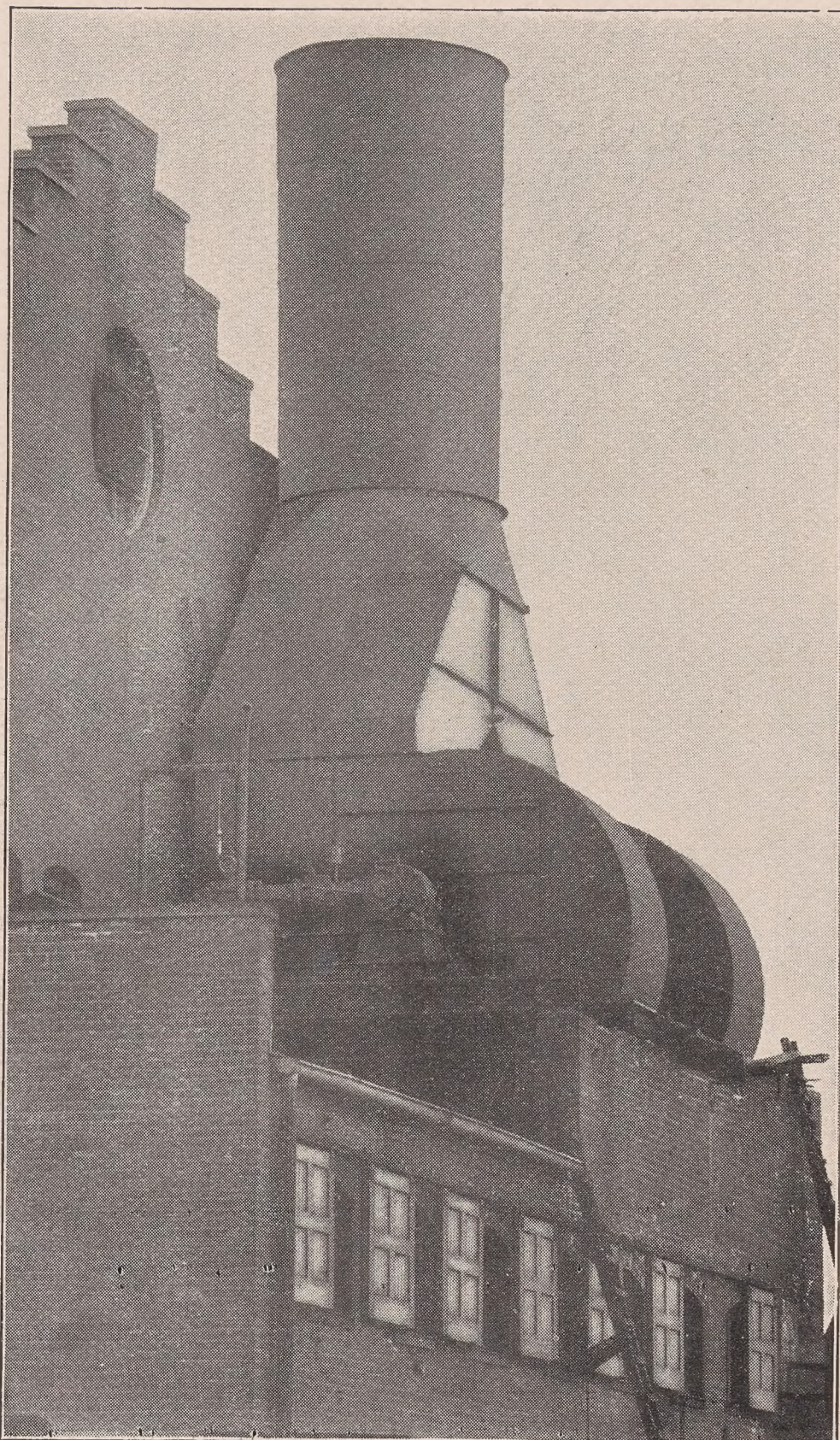
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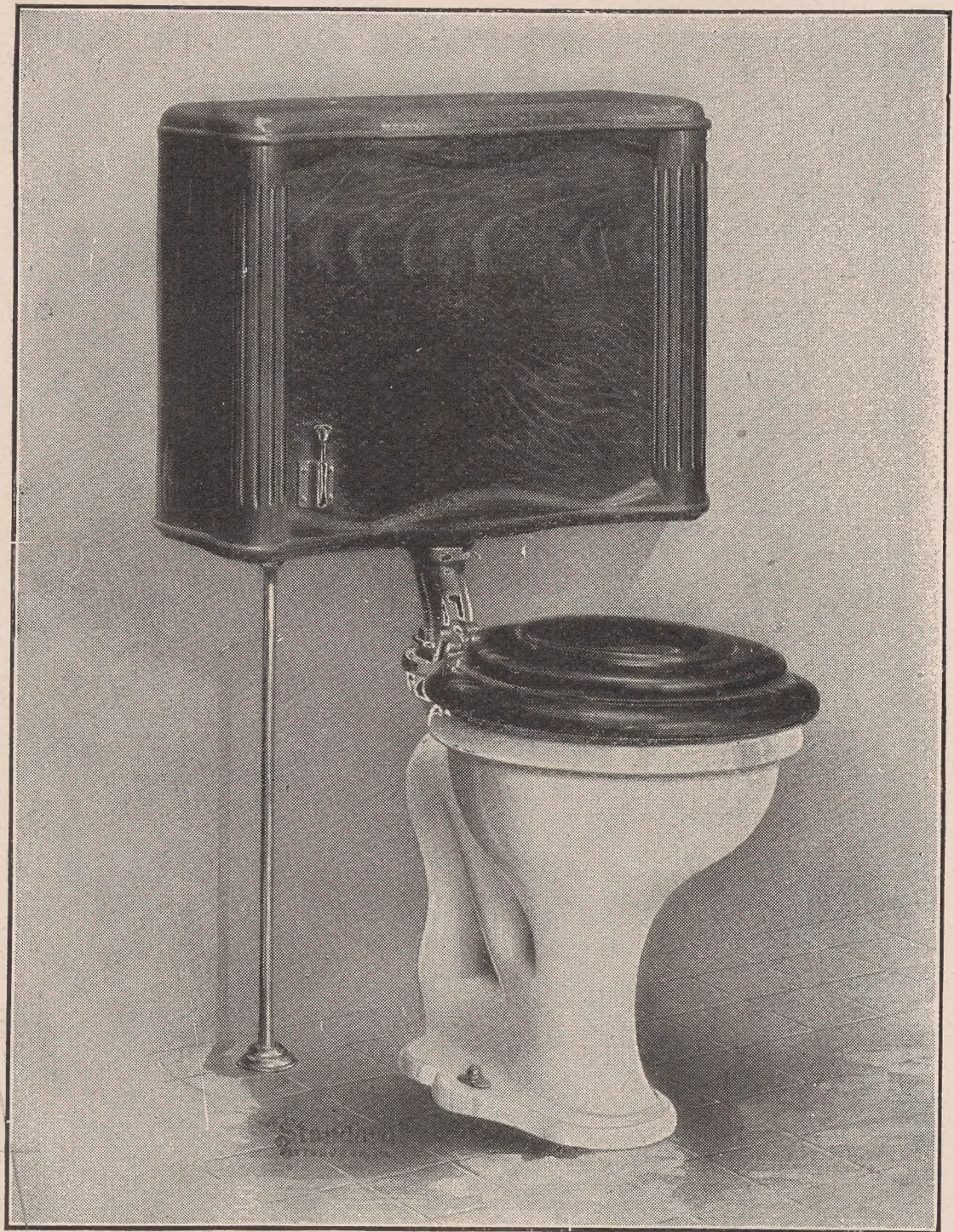
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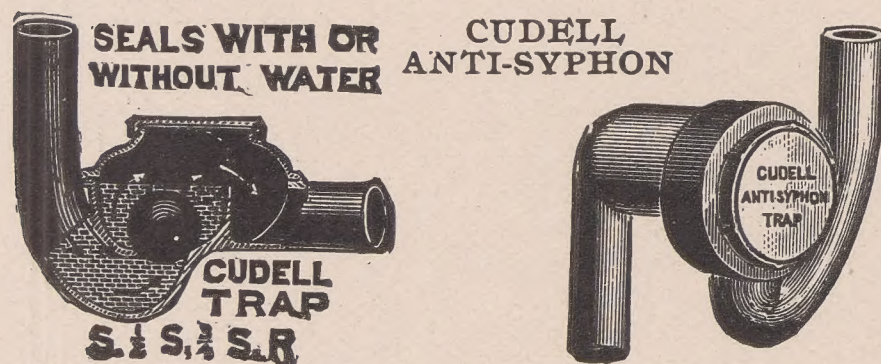
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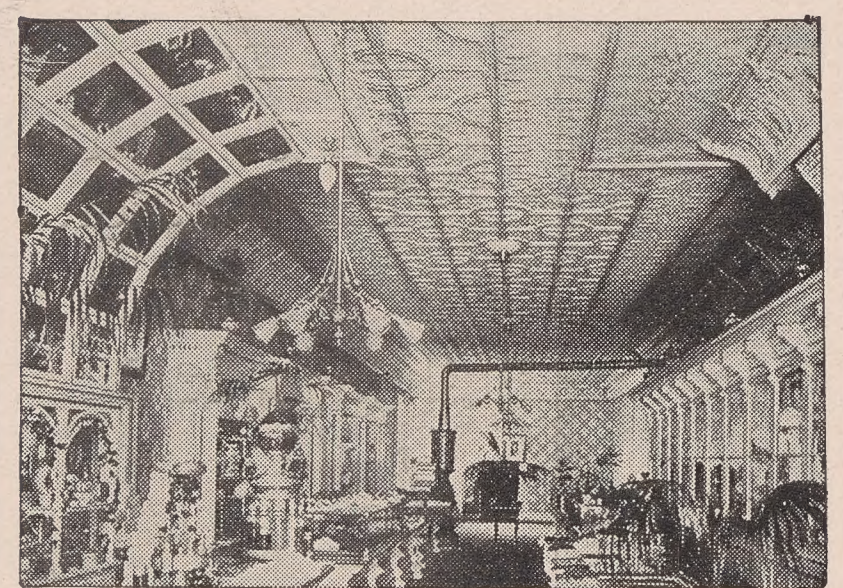
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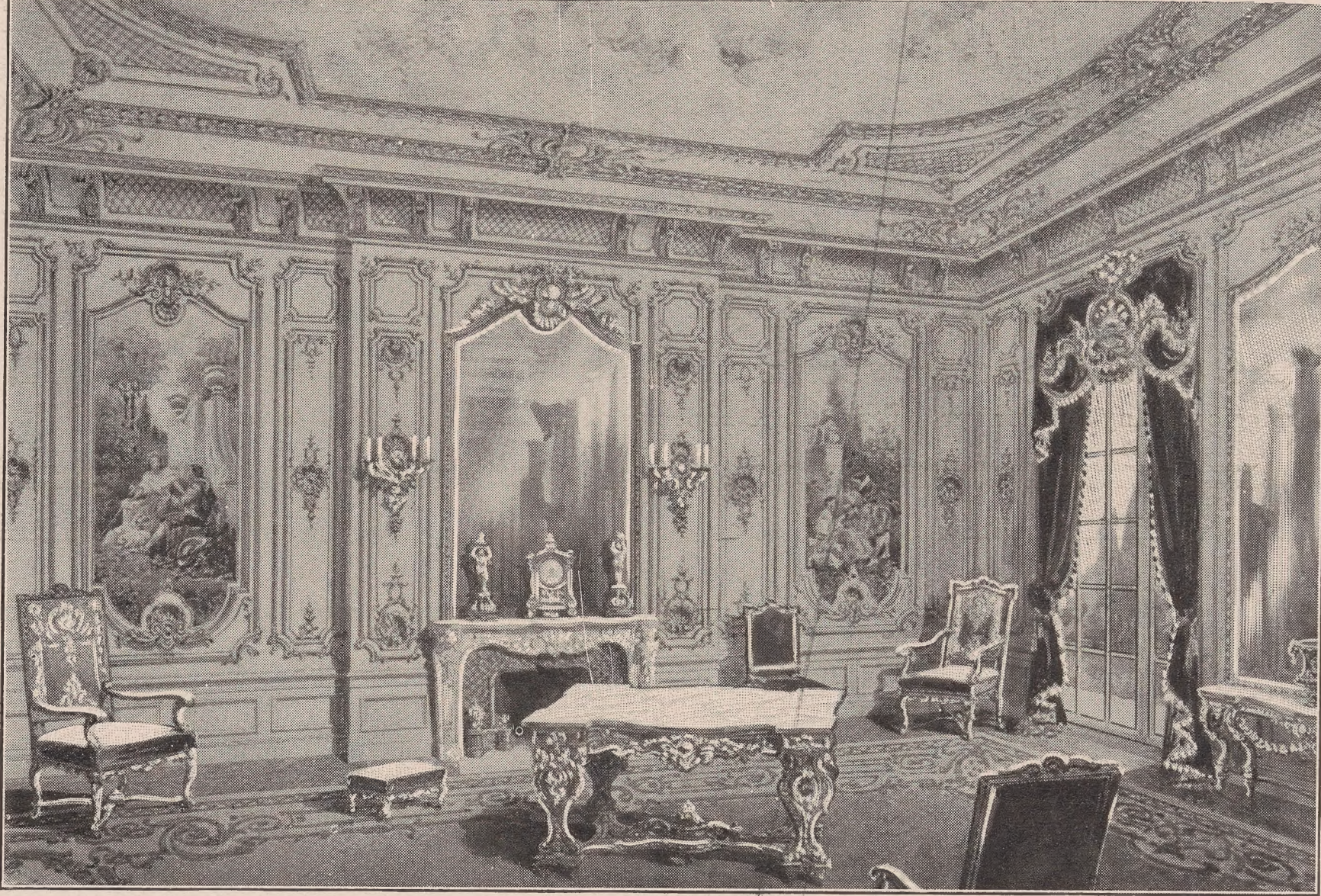
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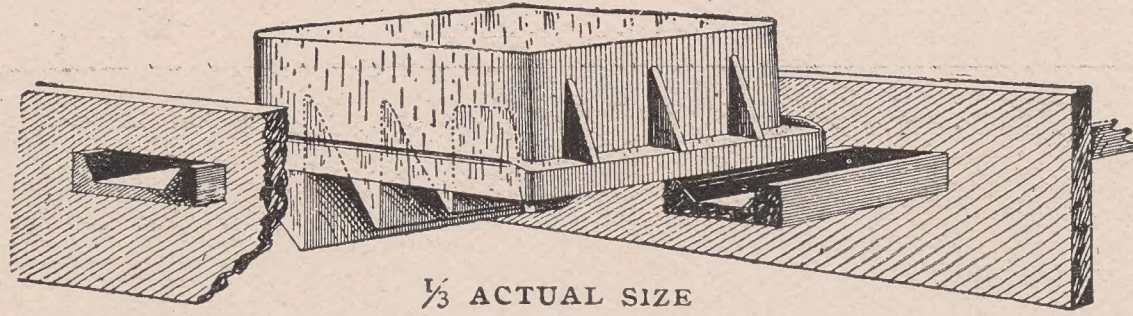
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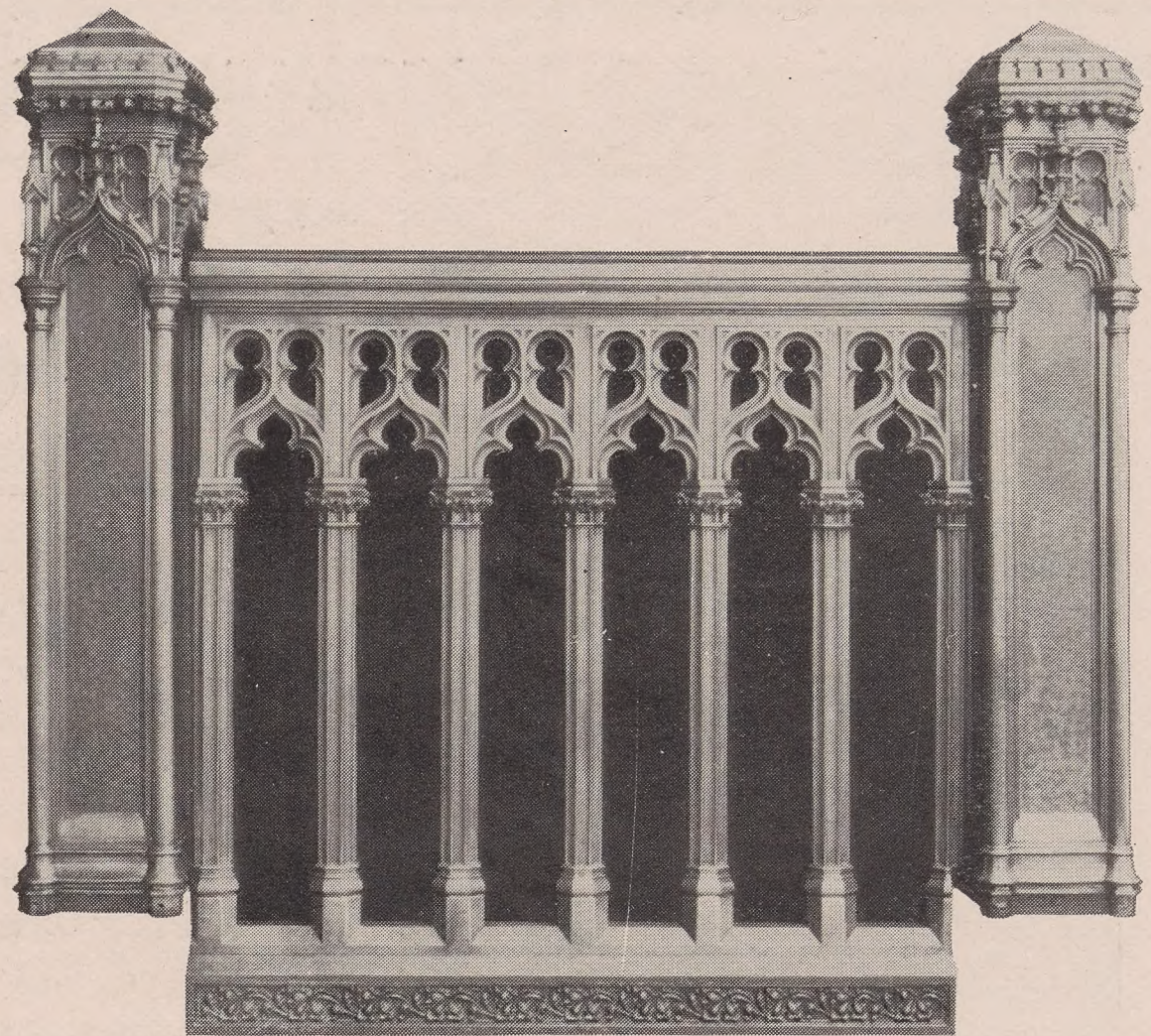
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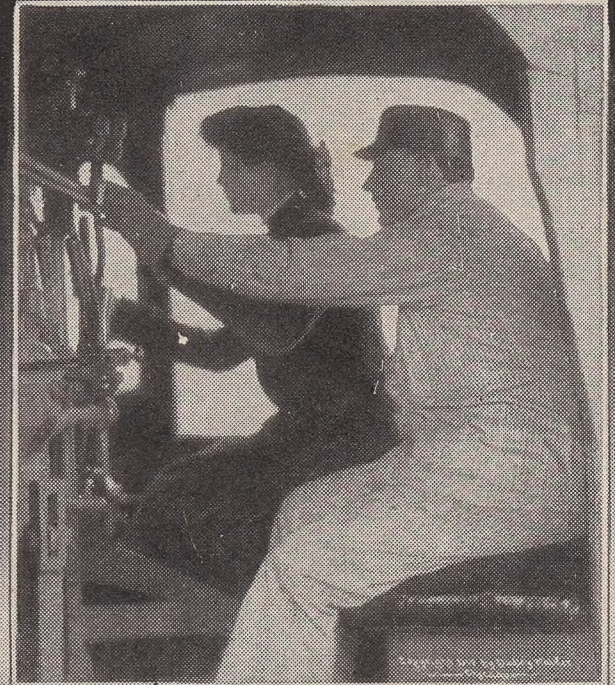
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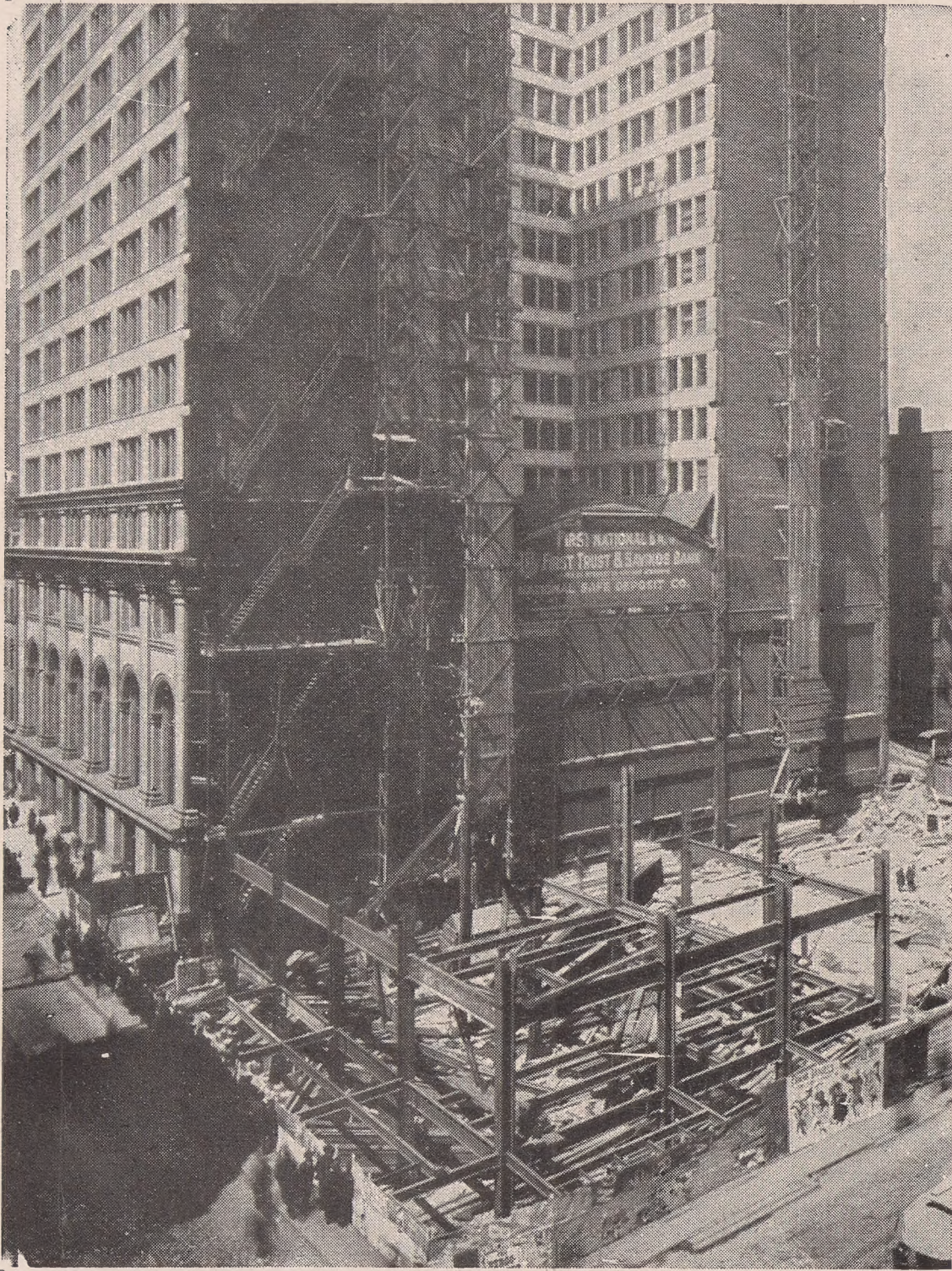
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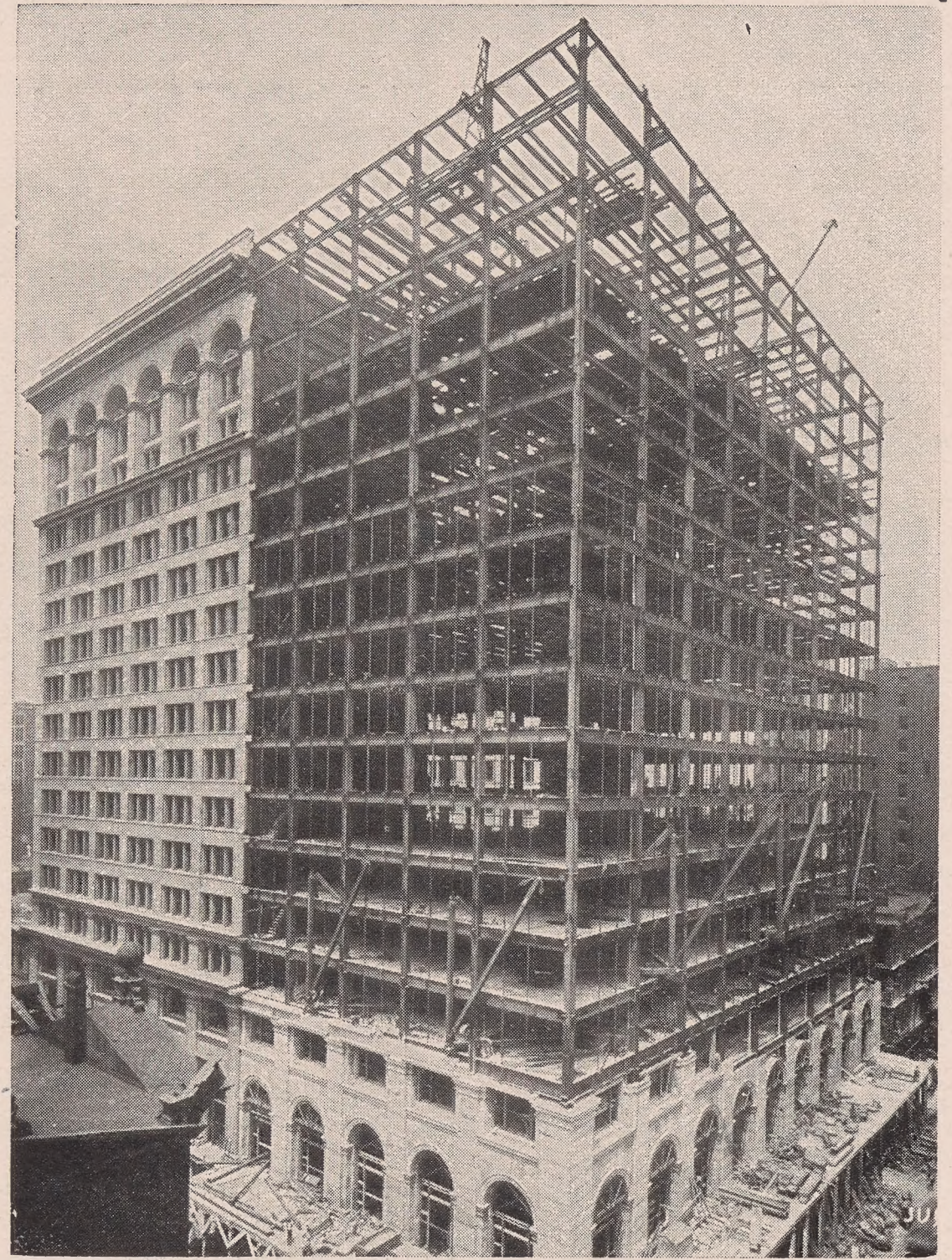
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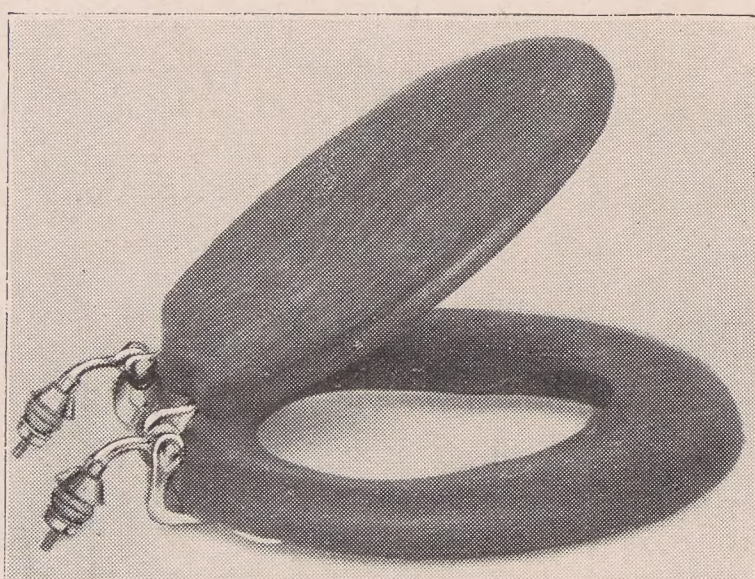
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VOL. XLVI.

OCTOBER, 1905

No. 3



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CONSTRUCTION, DECORATION AND FURNISHING

ISSUED ON THE 15TH OF EACH MONTH

PUBLISHED BY PORTER, TAYLOR & CO.

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NEXT CONVENTION AT NEW YORK, N. Y., 1906.

A Novel Association of Architects

Among the architectural associations of the country, probably the most unique is the Chicago Architects' Business Association. Some ten years ago the architects of this city concluded that there were a number of vexing problems that affected the welfare of the profession and which were of a nature that could not be advantageously cared for by the Chapter of the Institute. It was decided, therefore, to form a society to take up these questions which leaned toward the business side of architecture, and the Chicago Architects' Business Association was organized. That there was reason for its being is shown by the fact that for a decade it has constantly gained in strength and influence. It was the chief instrument in obtaining the passage of the architect's license law of Illinois. It has achieved many reforms in the conduct of the city building department and in the relation of architects to contractors; and has been largely instrumental in the revision of the building laws. Early in its career the association made a thorough investigation of the city building department and found, as was expected, an utter lack of competency among the heads of the department, and, to say the least, very lax methods prevailing throughout. There was no check upon the kind of building that might be erected by any owner who had influence with the department. So flagrant was this condition that there was no market for buildings that rigidly conformed to the building laws. They could not compete in price with the buildings of cheap construction, glossed over to present a fair appearance, erected by owners who were allowed to evade every building law in the code with impunity. These abuses the business association undertook to reform. They employed an inspector to visit questionable jobs and to report fully upon violations of the building ordinance. These violations were systematically reported to the building department but were usually defended or entirely ignored. The association thereupon took up the subject with the aldermen and mayor and forced the issue so strongly that an investigation of the department was made which resulted in ousting the building commissioner responsible for the violations. The department was reorganized and has shown a great improvement. Special permits are now of rare occurrence and when issued are thoroughly investigated by the association, which usually succeeds in having them revoked. Much attention has been given to a revision of the building ordinances and the dominating influence of the association has been shown in this direction. So careful and systematic has been the work in this connection that the association's printed records of the building laws and code are more accurate than those of the city itself. Many differences between architects as a class and building associations have been adjusted. The business association maintains an arbitration committee of seven members who are frequently called upon to settle disputes and whose findings are accepted as final. A handbook is issued annually which contains the building and lien laws, papers read before the association during the year, besides much general information on building subjects, tables, etc. This annual is a source of considerable

profit, as is the building contract form, adapted to local needs, prepared by the association. Without these sources of revenue the association would be hampered in its work, much of which involves considerable expense. The initiation fee and dues are so low as to be favorable to the large membership that is desirable. Any licensed architect of the city is admitted to full active membership. The association deeply laments the recent loss by death of its secretary, Mr. Charles R. Adams, to whose efficiency, years of devotion and untiring efforts the association attributes a large share of its success. No similar association exists elsewhere, but the success achieved by the Chicago Architects' Business Association is such that the architects of other cities may well consider the advisability of organizing along the same lines for the accomplishment of similar objects.

Taxes on Fireproof Buildings

In a paper prepared by the president of the Ontario Association of Architects, the suggestion is made that owners of buildings constructed of inflammable materials should bear the bulk of the burden of taxes for protection against fire. He argues that if an owner constructs a fireproof building the result is a direct benefit to the public and the owner entitled to profit accordingly. Having built at increased cost a building which reduces the fire hazard of a community he should not be taxed for this extra investment. The tax on this extra cost should fall upon the owners who for the greed of gain build flimsy structures which are a fire menace to all surrounding property and necessitate the support of extensive and highly organized fire departments. No one will question but that there is much more than a grain of justice in the course suggested. In view of the regulation in Paris to remit taxes on the best designed buildings, it would seem possible in America to in some way work out an adjustment of taxes that would recognize the value to the community of the construction of fireproof buildings by rebating a portion of the owner's taxes and placing a corresponding charge upon other buildings in the proportion that they lack fire resisting qualities. Much could be accomplished in this direction by the agitation of the subject by the reform bodies to be found in nearly all cities. To the extent that the standard of building would be raised and more regard paid to fireproof construction, the insurance companies would be interested to aid in the movement. The science of fireproofing is gaining continually in exactness, and an owner can depend upon getting just the degree of fireproofing that he is willing to pay for. If he will not have good construction, it is but just that he should be discriminated against by the municipality.

Financial Re- turns on Fire- proof Buildings

The extra cost of fireproof construction has been reduced to such a low percentage that buildings as profitable investments may be considered apart from such extra cost. As a matter of permanency the modern fireproof building, with its foundations of concrete, its structural framework of iron or steel, and its outside and inside walls of fireproof tiles, brick, terra cotta and good concrete, will last for decades with scarcely any depreciation. So far as possible to judge their endurance should continue for centuries. The iron work, properly protected, will neither corrode nor

rust, and in the few instances where such structural work has been taken down after ten and twenty years of service, the iron has proved as good as when first erected. But the permanency of buildings must be judged from their comparative immunity from destruction by fire. Few buildings ever reach an age of half a century without being tested by fire. The danger from fire increases in large cities where crowded conditions introduce the chances of fires, and unless this is offset by greater safety devices and precautions the damages must increase rapidly. The ordinary wooden building stands one chance out of ten of not being destroyed by fire, and the ordinary brick and stone building about three chances out of ten. The modern fireproof structure is so secure against total or partial destruction by fire that it is placed high in the order of immunity. There is only one chance in ten that it will ever be seriously injured by fire. This chance comes only once in a lifetime, when such a fire as that of the Baltimore conflagration sweeps through a city and makes a heat so intense that the fire fighting machines and methods are helpless in combating it. Even this single chance of destruction or partial loss is steadily being eliminated. Imagine the results of another Baltimore fire if every second or third building were built according to the most approved modern methods of fireproofing! Instead of sweeping through block after block a fire would be limited by the barriers formed by the fireproof structures. Two such buildings on every block would prove of more effective value in limiting the flames to a narrow territory than several additional fire departments. It is the confession of the fire departments that had Baltimore been supplied with more fireproof structures the flames could never have gotten beyond the control of the city firemen. A modern ten to fifteen story fireproof building serves to protect the whole district in which it is situated. It forms a fire wall which makes it easy for firemen to use as a base from which to operate in checking a conflagration. Thus with the growth of fireproof buildings we secure greater permanency for each individual one. When our cities are built up of such structures fires will no longer amount to more than slight interior conflagrations, which can readily be kept within a few rooms or a single floor. The destruction wrought can not greatly affect the permanency of the structure, for the walls and iron framework can not be seriously damaged. The interior furnishings and decorations could be totally destroyed without creating sufficient heat to affect the walls and iron girders and columns. When we consider the millions of dollars' worth of property destroyed every year by flames, the gain obtained by making the majority of buildings proof against serious damages from fires can be readily appreciated. In ten years the losses on twenty of these buildings compared with fifty not fireproof were practically nothing. All the premiums represented a clear gain. In other words, if all the buildings of a city were fireproof, insurance premiums could be cut in two, and the companies would make far greater profits than today. The insurance companies are beginning to appreciate this, and as wise, shrewd investigators of the subject they are encouraging the movement by offering lower rates for buildings which come up to the standard of fireproofing demanded. This gives to the owner of a fireproof building a better opportunity to show profits on his investments. It is only one feature of the subject, but it proves of the utmost importance.

THE PLANNING OF HOSPITALS

BY T. M. CLARK, ARCHITECT

PART I

BOTH architects and physicians acknowledge that modern hospitals, although designed by eminent representatives of the professions of architecture and medicine in consultation, almost always turn out, when finished, to be more or less disappointing. The doctors, who had supposed that they were collaborating in a work of perfect sanitary excellence, find, when the building is done, that its sanitary qualities would admit of considerable improvement; while the architects, who imagined that they had only to carry out the doctor's suggestions to obtain the applause of the whole medical fraternity, are equally distressed at the discovery that certain points have still been left open to criticism. The explanation of these disappointments is, probably, to be found in the fact that architects and hospital physicians, like architects and other clients, often think that they understand each other when they do not; and, supposing that their ideas are in perfect accord, find out, too late, that neither has accurately understood what the other supposed to be perfectly clear.

Not long ago the writer had the privilege of inspecting a beautiful new hospital, built by architects of high reputation, and of long experience in hospital work, under the direction of very eminent physicians. The building showed the care and skill with which it had been planned and carried out, as well as the liberality with which money had been spent upon it. The operating room was a marvel of marble, glass and nickel plating; the doors, with excellent intention, at least, were made of strips of quartered oak, glued together, so as to present a perfectly smooth and unbroken surface; and many other ingenious precautions were taken to prevent the lodgment of the dust so much dreaded in hospitals. Even the bulletin boards at the head of each bed, on which the record of the patient is kept, were of enameled metal, so as to be readily cleaned; yet, all around each ward, just below the ceiling, which was coned in the usual manner, had been put an ordinary wooden picture-molding. No architect needs to be told that, of all devices for gathering and harboring dust, a picture-molding is the worst; yet here was one, in the sick wards of a very modern, and, in proportion to its size, very costly, hospital, running over the heads of all the beds, in the most favorable position for collecting scarlet-fever scales, tuberculosis microbes, epithelium cells and other organic particles, and holding them, out of reach of brooms and dusters, until a gust of wind should blow out some of the accumulation, to descend upon a fresh set of patients. The picture-molding was of no conceivable use in that position, for no house-physician in his senses would think of hanging pictures over or between hospital beds; and it seemed to have found its way there simply through the failure of some specification-writer to comprehend thoroughly the medical man's views on such matters, seconded by the failure of the medical men, unaccustomed to the details of the inspection of buildings, to notice the molding; or, if they noticed it, to realize its capacity for mischief.

Such oversights as these, trifling in themselves, yet influencing to some extent the successful administration of a hospital, might be avoided, perhaps, if hospital phy-

sicians knew a little more about architecture, or architects a little more about medicine. Naturally, an architectural journal could hardly be expected to undertake even the elementary instruction of physicians in architecture, or to impart to architects the rudiments of medicine; but it may, at least, attempt to summarize and translate into architectural form, something of the modern medical view of hospital hygiene and administration, at the same time that it can, perhaps, point out errors which medical men sometimes fall into, through ignorance of details of construction, and of properties of materials, familiar to every architect.

In order to treat intelligibly of the planning of hospitals, it is necessary to divide them into three very distinct classes, the first comprising the so-called "general hospitals," in which, as a rule, both surgical and medical cases are treated, and which must be provided with costly but indispensable auxiliary services; while the second is devoted to sanatoria for tuberculous patients, the requirements for which are very different from those which must be fulfilled in general hospitals; and the third includes only hospitals for the insane, or asylums, as they are now generally called, the conditions for which are, again, totally different from those affecting either of the other classes.

Of these three classes, the first, including many varieties and subdivisions, such as children's hospitals, eye and ear infirmaries, maternity hospitals and others, is by far the most important, as general hospitals are a necessity in every town in which an accident may occur or an epidemic break out. Naturally, thousands of hospitals of this class have been built, and theories of hygiene in endless variety have been carried out in them; but the absolutely perfect hospital has, perhaps, not yet been constructed.

Every general hospital consists of two essential parts, one being the administration, with its subordinate services, for receiving and examining patients, providing for feeding them and keeping them warm and clean; supplying them with fresh air and medicine; taking care of them if they die; giving necessary information to their friends, and keeping the accounts of receipts and disbursements; while the other includes the wards, which are for the patients alone, and, for their advantage, are kept carefully separated from the business portion of the establishment. In a large hospital the planning of the administration block is a complex and difficult matter; and, as the administration block exists, so to speak, for the service of the wards, its requirements will be best understood by studying first the arrangement of the latter.

The smallest hospital, except school and military hospitals, has usually two wards, one for men and the other for women. In large ones there are generally separate surgical and medical wards for each sex, as it is desirable to keep medical and surgical patients apart, for the benefit of both, sympathetic and imaginative medical patients being often distressed by the suggestion of operations, while surgical patients, after operations, should be kept in an atmosphere as free as possible from disease germs of any kind. Where many patients are treated, as in town or city

hospitals, there must be many wards, both medical and surgical; and, both on the men's and the women's side, it is usual to arrange contagious wards, as well isolated from the others as possible, to which patients can be taken who unexpectedly develop contagious diseases in the hospital, but are unable to bear the journey to one of the still more isolated establishments devoted exclusively to contagious cases. Children's wards, separate from the others, but similar to them, often form a part of a large hospital group; and wards for consumptives are sometimes added, although these sufferers, as well as nervous patients, are now usually treated in special establishments.

Besides all these, most hospitals, in addition to the general wards, have private or "pay wards," consisting of private rooms for patients who can afford to pay for the privilege of being alone; and "isolation," or "observation" wards, consisting of single rooms, in which very nervous patients, or those whose disease has not fully declared itself, can be kept temporarily by themselves. In very large hospitals still further subdivision is sometimes found, in accordance with the preferences of the medical direction.

In the older hospitals the wards, although separately classified, often opened directly into each other, for economy in building, as well as for the supposed convenience of nurses, physicians and servants; but, in a modern hospital each ward is practically complete in itself, having its own nurse's room; its scullery, or "duty room," where dishes are washed, and a part of which is often fitted up as a "ward kitchen," where broths and gruels may be cooked without sending to the general kitchen; its own bathroom, linen-closet, wardrobe and lavatory; and, often, its own patients' dining-room and day-room; so that the occupants of any ward are completely independent of those of the other wards, the only communication between them being by means of a general corridor, and a passageway, usually underground, through which meals are brought from the general kitchen to the ward dining-room.

At the same time, however, that the wards must be independent, communication among them must be so reasonably convenient that the nurses and the house physicians can reach their patients without too much fatigue or undue exposure. In mild climates the wards are sometimes entirely detached, so that it is necessary to go through the open air from one to another; but this is objectionable in colder regions, and the present practice is to connect all the wards, except, perhaps, the contagious wards, by covered corridors, with windows on each side, so that communication of air from one ward to another through the corridor may be intercepted by the cross-currents from the windows. The same corridor also connects the wards with the administration building, in which the business of the steward, medical director, matron and cashier is carried on, and which also usually serves as a residence for the chief medical officers, the matrons and the house servants. The servants attached to the general kitchen and laundry are usually accommodated in a separate building; and the nurses, in large hospitals, have a house to themselves, in which they sleep and spend their time when not on duty.

On the surgical side of the hospital, near the wards and the administration building, but separated, if possible, from both, so that the smell of ether may not annoy either patients or officers, is the operating department, usually in a separate building, the essential portions of which are the operating room, with light from above, as

well as in front; an etherizing room, and a recovery room, in which patients who have been operated upon are allowed to lie quietly until the effect of the ether has passed off, and they have recovered from the shock of the operation. In a large hospital, where operations succeed each other rapidly, there may be two or more etherizing rooms, and several recovery rooms; and two or more operating rooms are often provided. In hospitals connected with medical schools, it is still a common, but rather objectionable, practice to arrange one operating room in the form of a theater, with rows of seats, raised one above another, around the operating table, so that a large number of students can watch the work of the surgeons.

For feeding the patients and their attendants, for supplying them with fresh air and warming it in winter, and for washing their linen, bed clothes, table-cloths and towels, a group of buildings is required, communicating with the administration building, so that the matron and steward can supervise them easily, and connected with the wards by such conduits and passageways as may be necessary for conveying air, or for the movement of the trucks, or small railroad cars, which serve for transporting dishes and other objects to the lifts by which they are hoisted into the wards. Connected with the kitchen must be storerooms, where provisions can be received, weighed and kept until wanted; and, in large hospitals, an ambulance stable is often placed near.

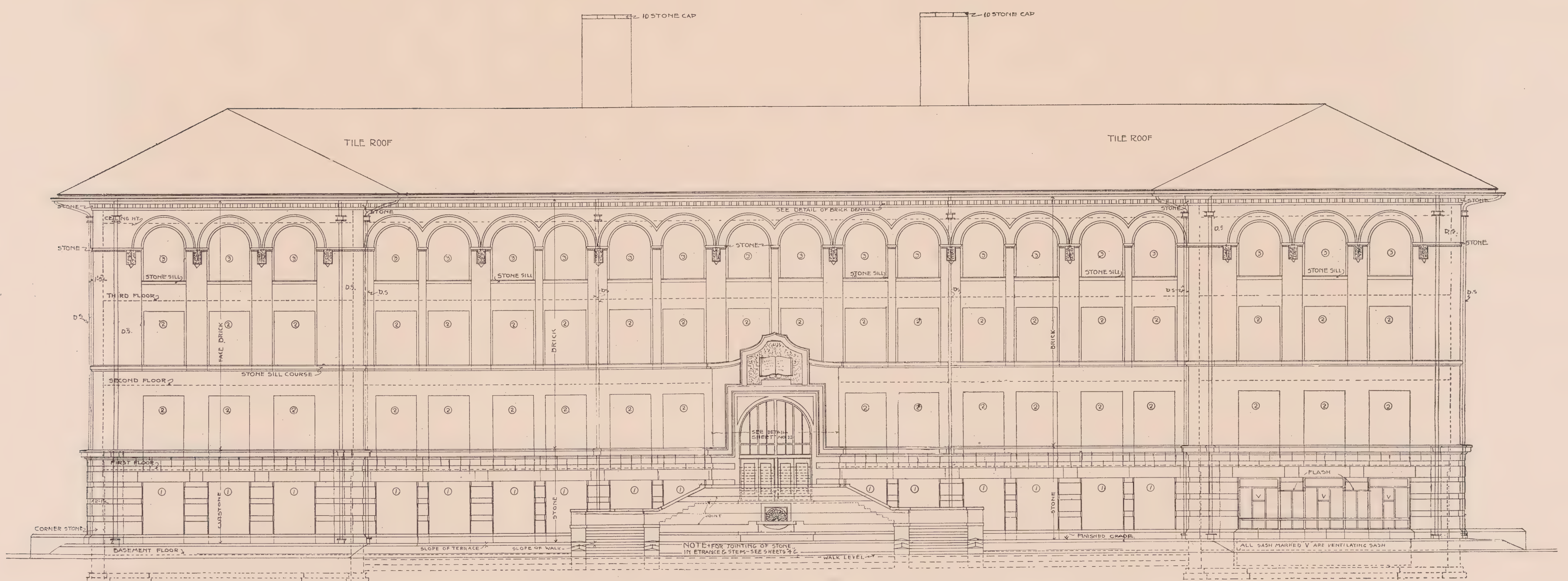
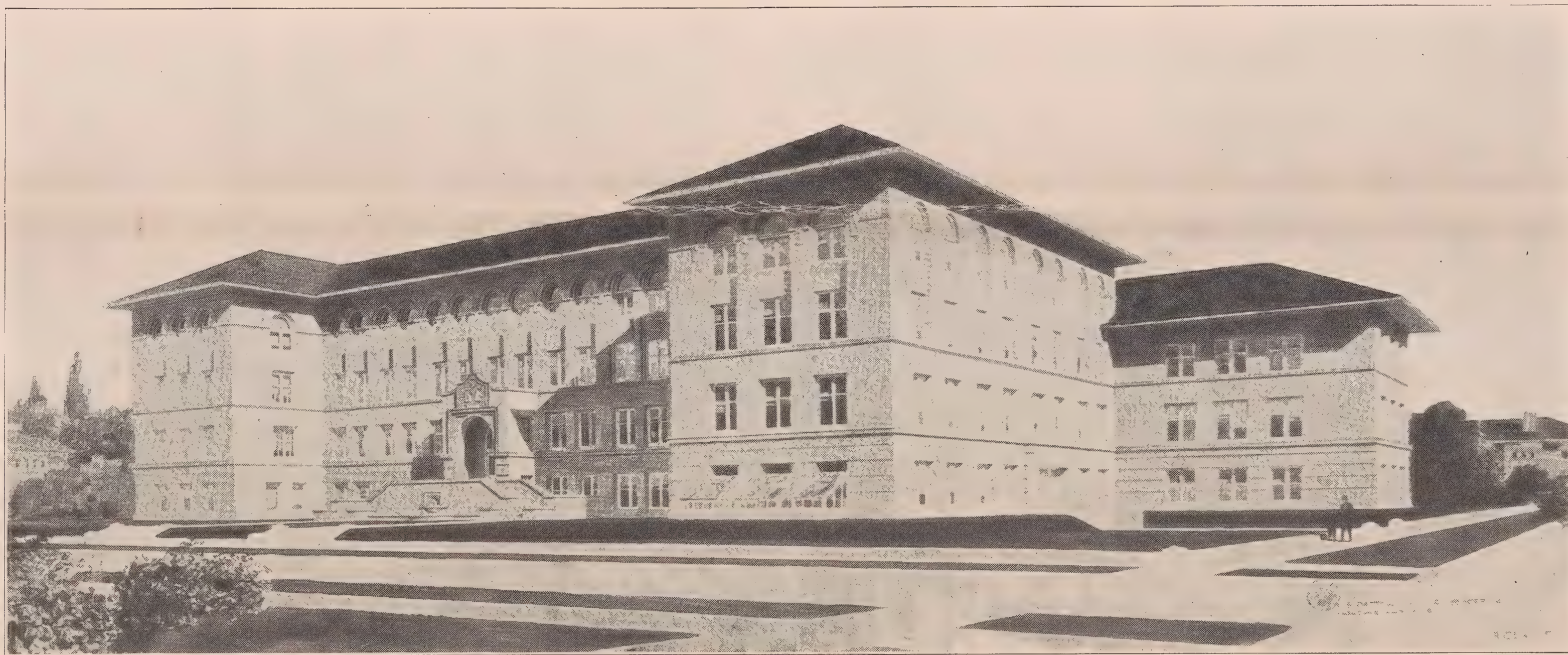
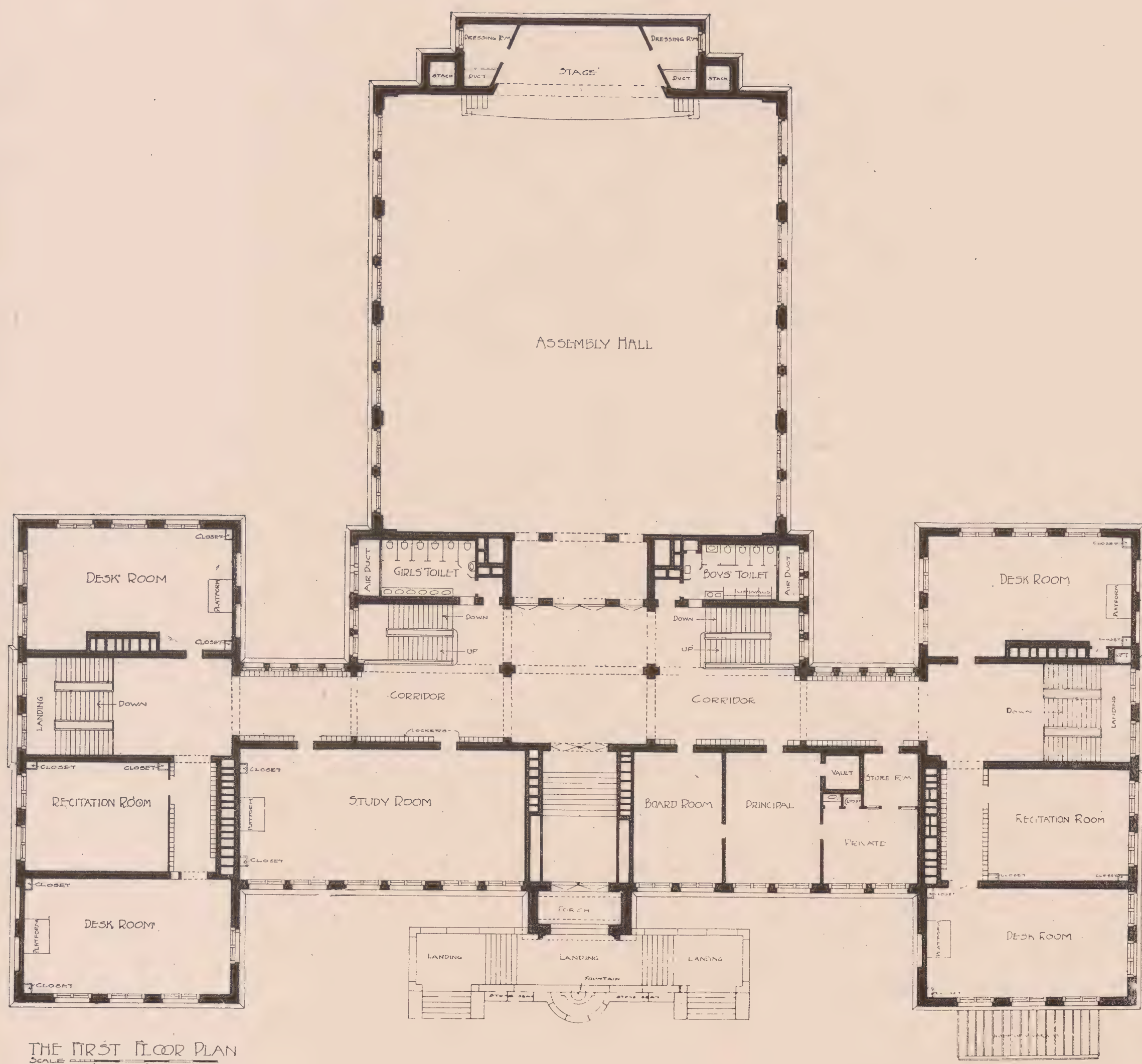
In some remote part of the grounds, where it can not easily be seen from the ward windows, must be a mortuary, where the remains of patients who die in the hospital can be placed until claimed by their friends. Often a little chapel is connected with the mortuary, and an autopsy room is always provided, either in the mortuary building or elsewhere, in order that obscure cases may be investigated. Besides the autopsy rooms, pathological rooms are generally required in large hospitals for scientific investigation.

These items,—the medical and surgical wards, male and female, with the corridors connecting them; the administration building; the operation building; the kitchen, laundry and boiler-room group, with the ambulance stable, if required; the nurses' home, and the mortuary, form the essential elements of every general hospital, and on the successful planning of each element, and the proper connection of the whole, depends in a great degree the economical and efficient working of the institution.

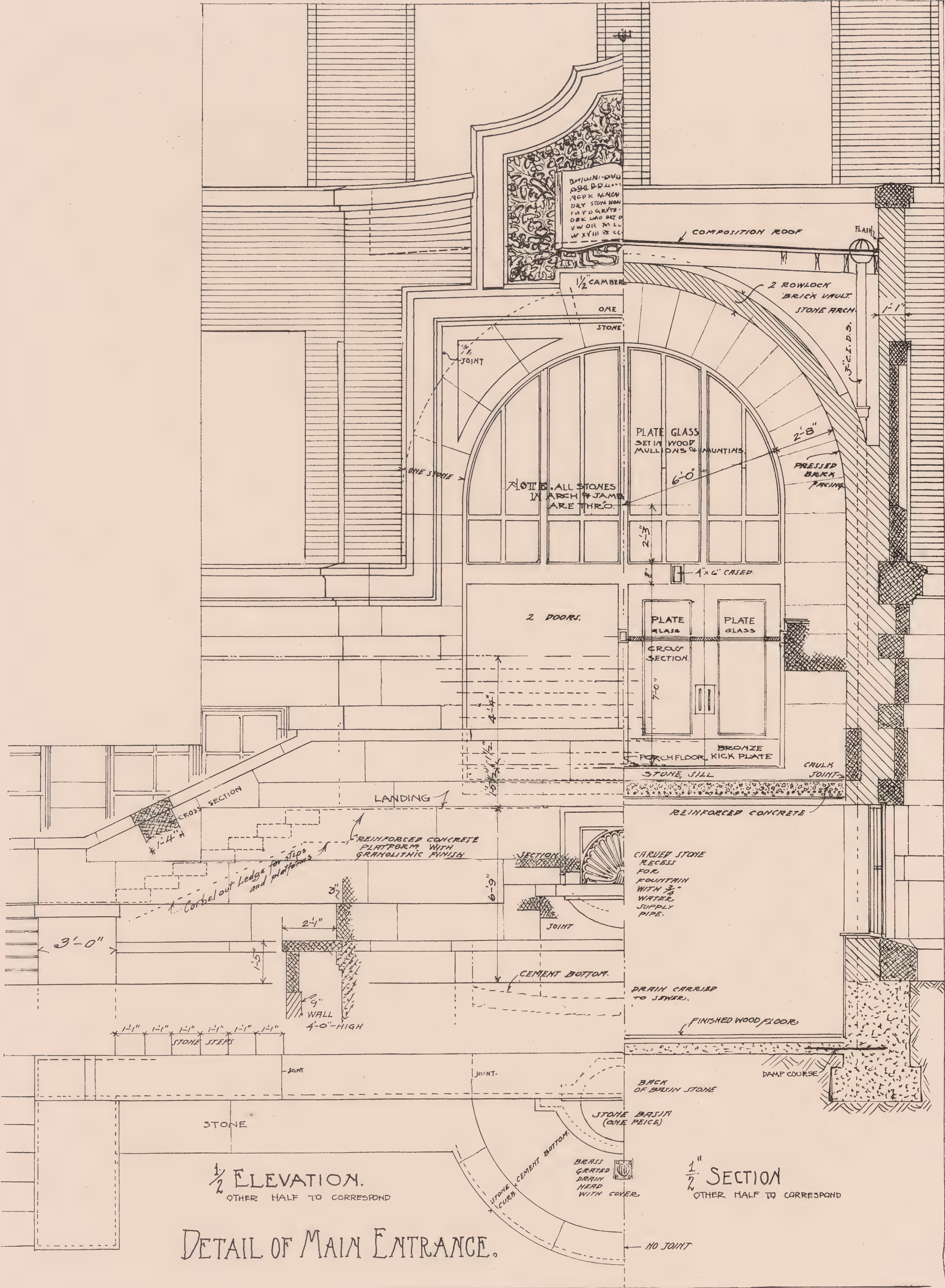
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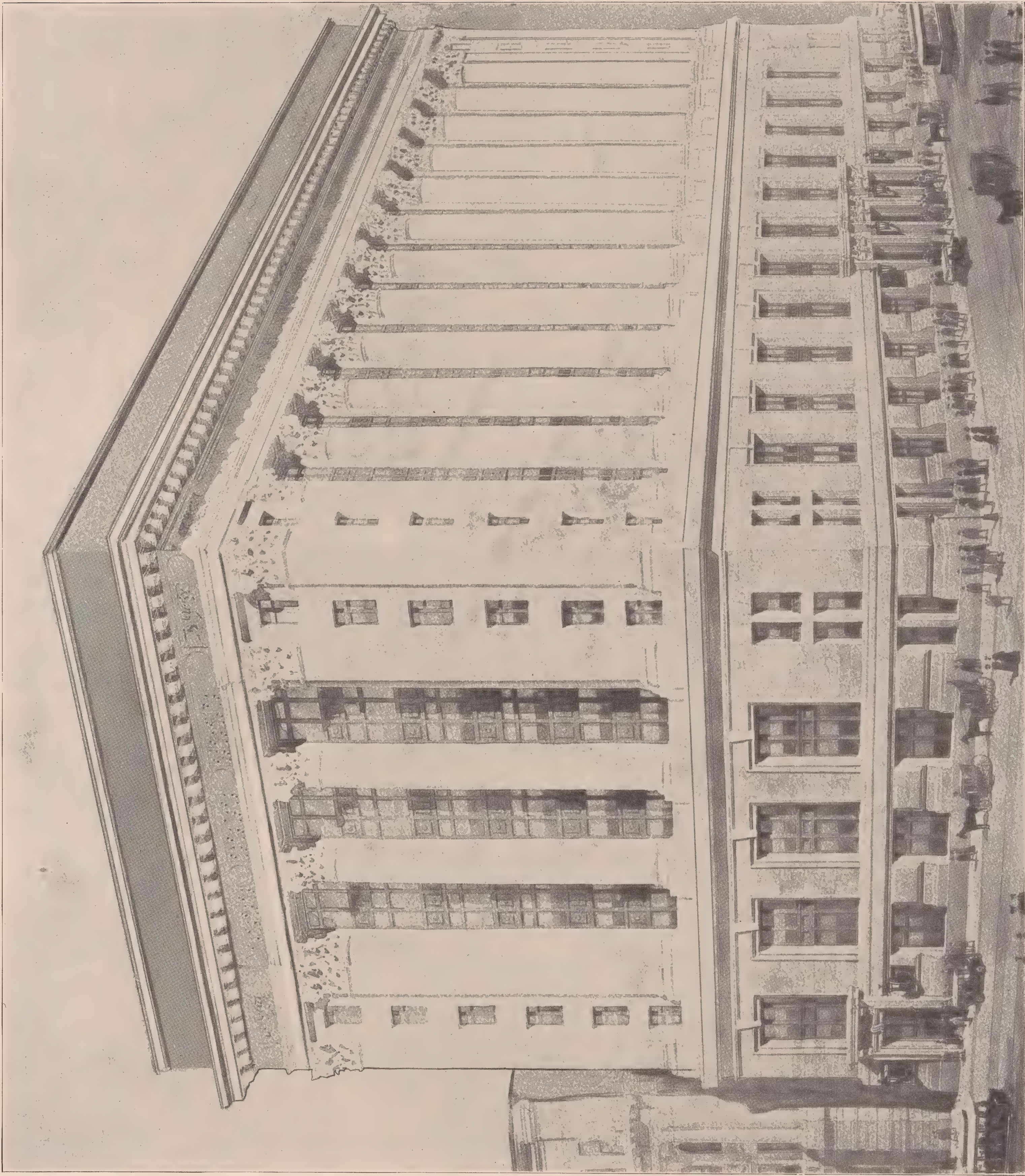
AN important item in the profitableness of a fireproof building is in connection with the insurance companies. It is to the interest of the insurance companies to promote all efforts which seek to limit the fire hazard. It has been frequently said that the insurance companies do not care to reduce the fire hazard beyond a certain point, for the money paid in as premiums would then be so reduced that the profits would vanish. This is beyond question a superficial view of the subject. The losses by fire are so great that every year sees the bankruptcy of a number of insurance companies, and the larger ones are often hit so hard that it is only by combining that they are saved from going under. They dread today the risks which they must assume far more than any fear that fireproof buildings will take away all their profits.



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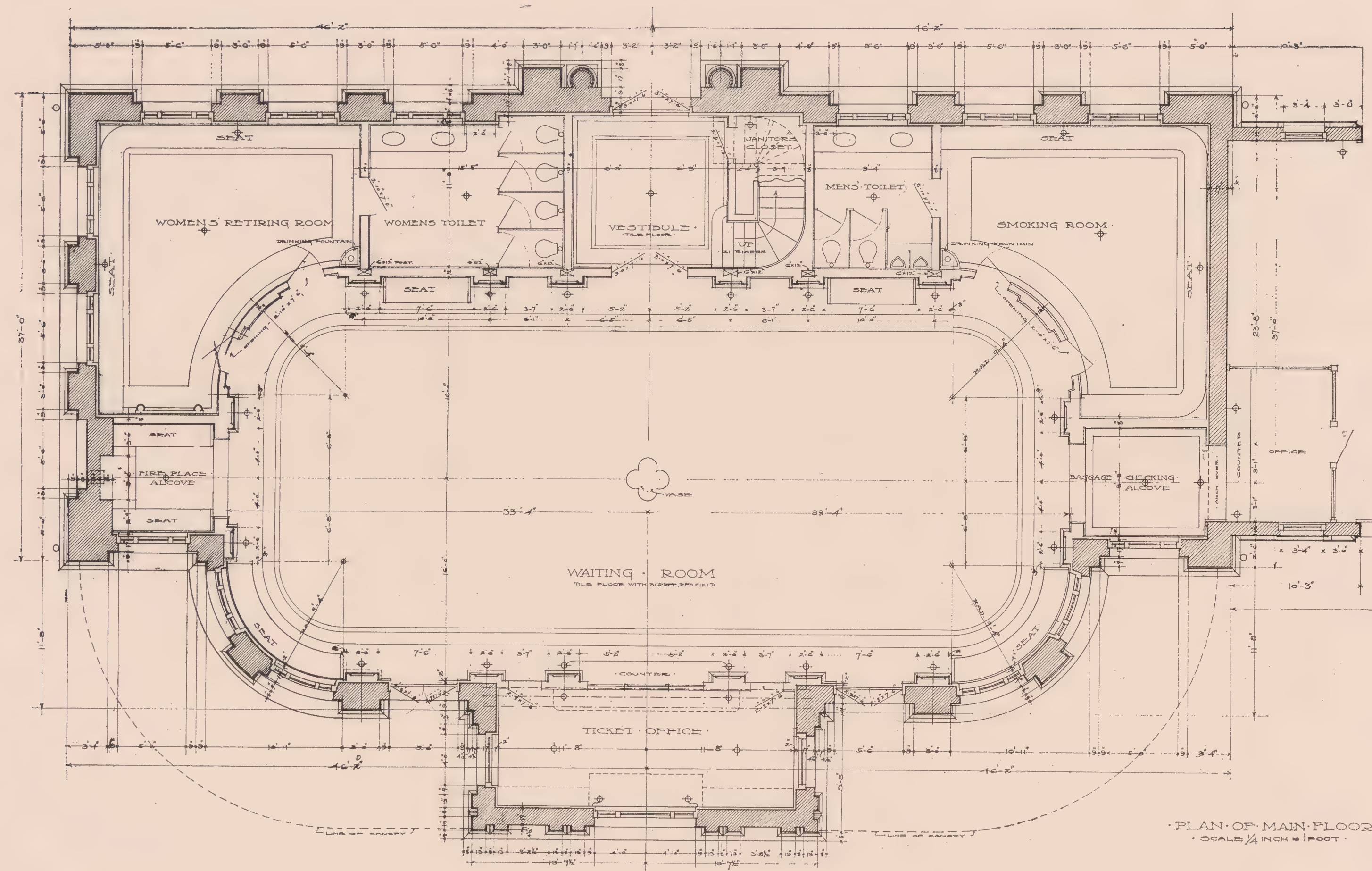
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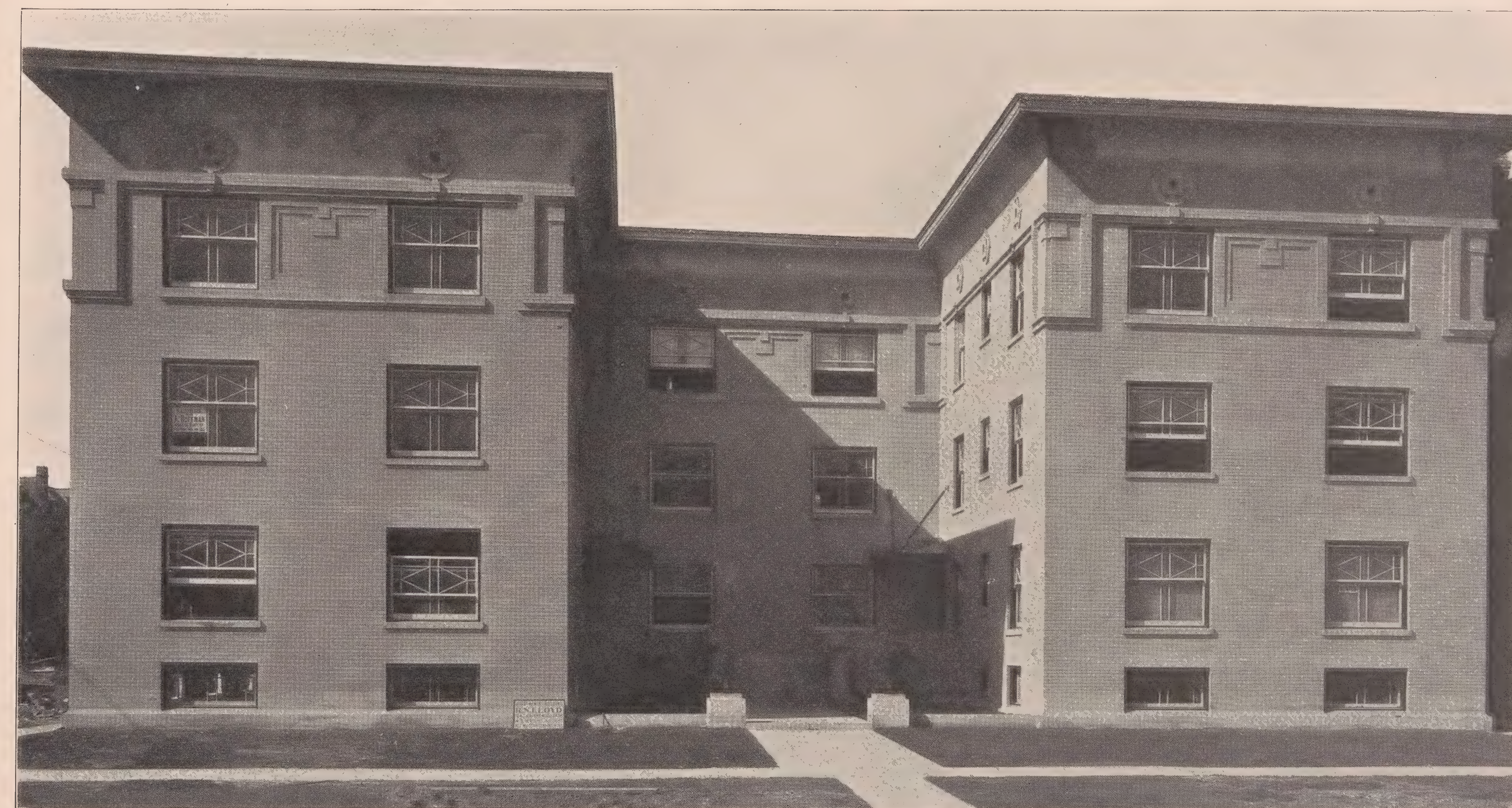
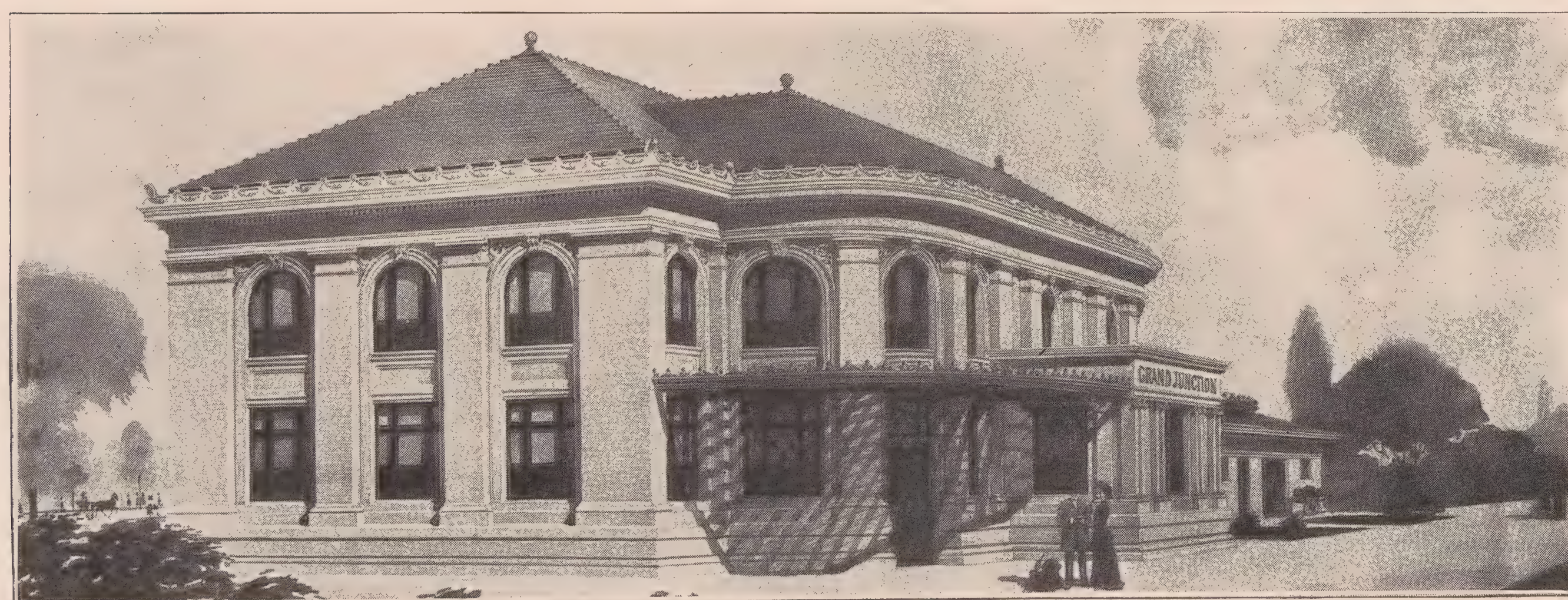


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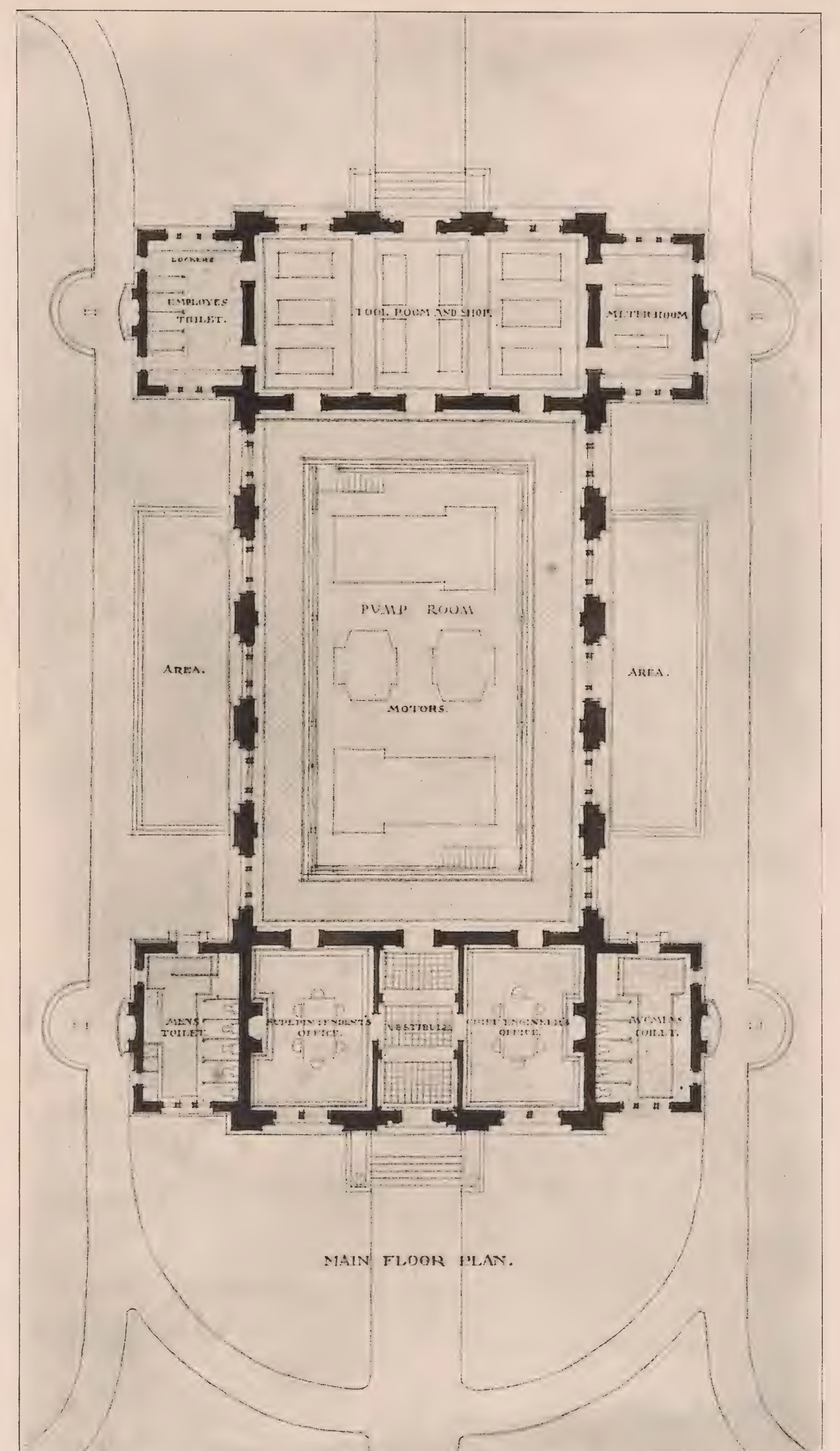
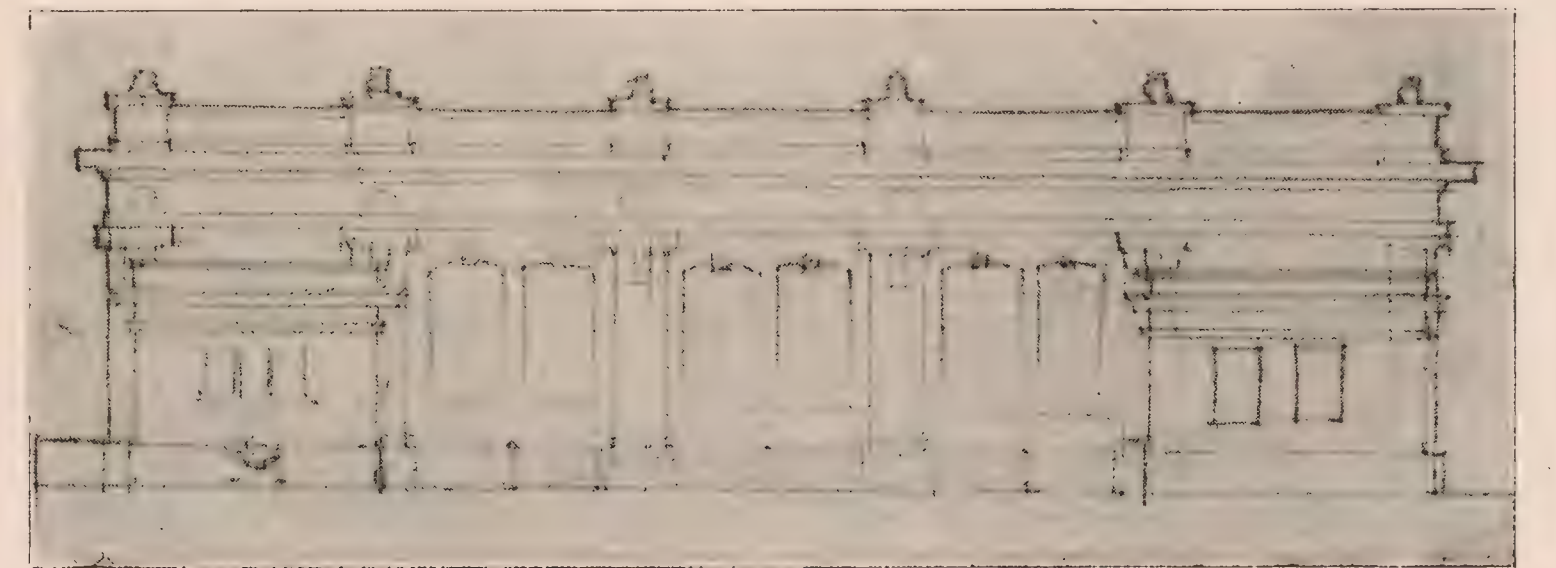
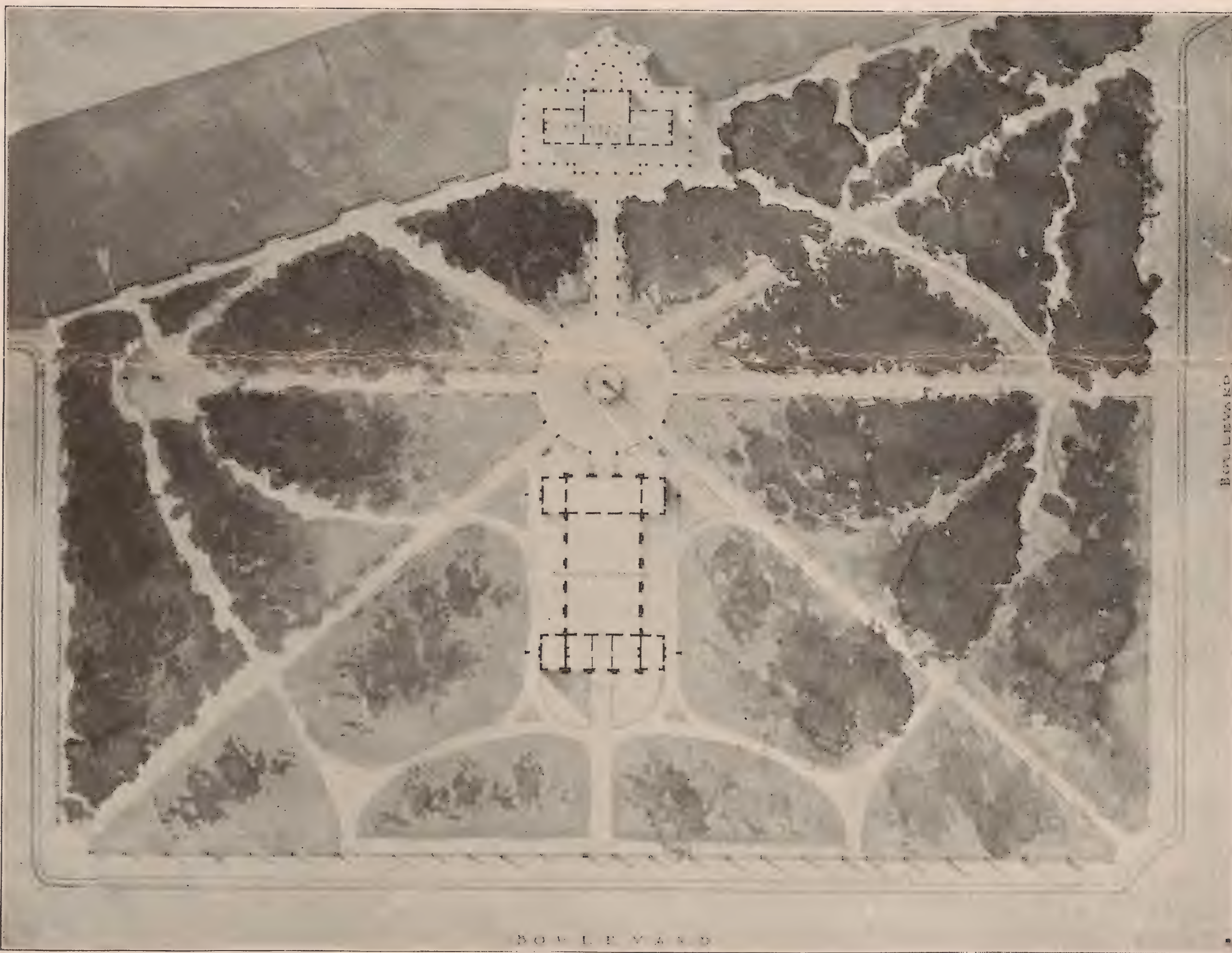
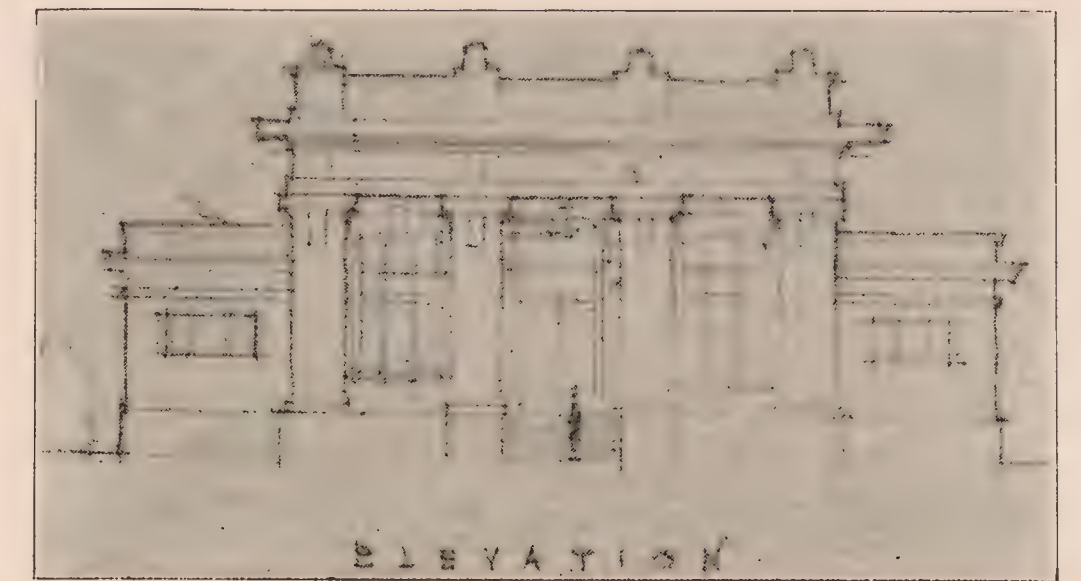
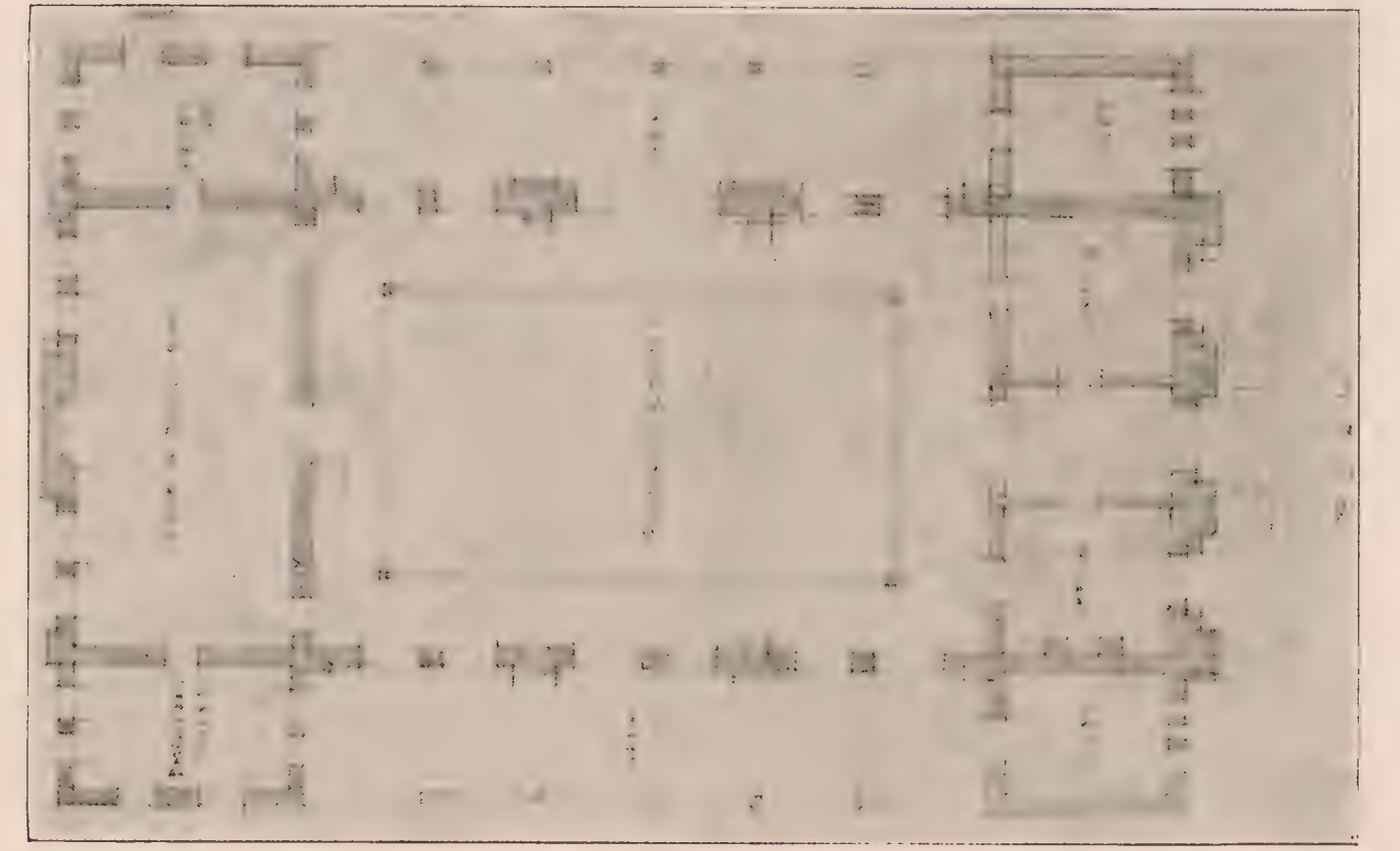
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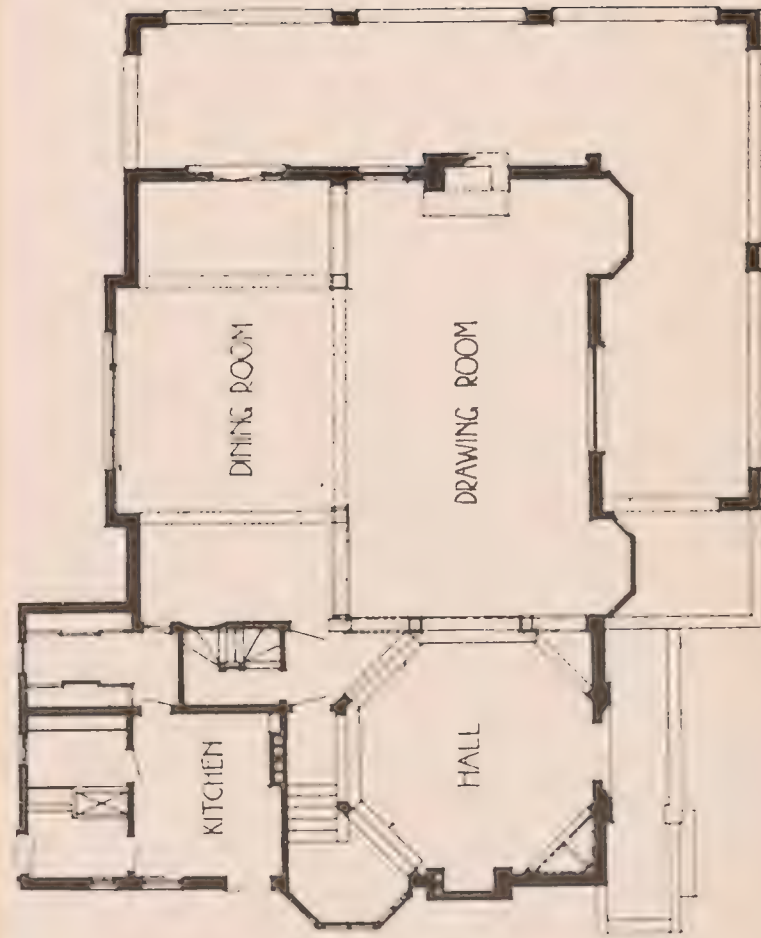
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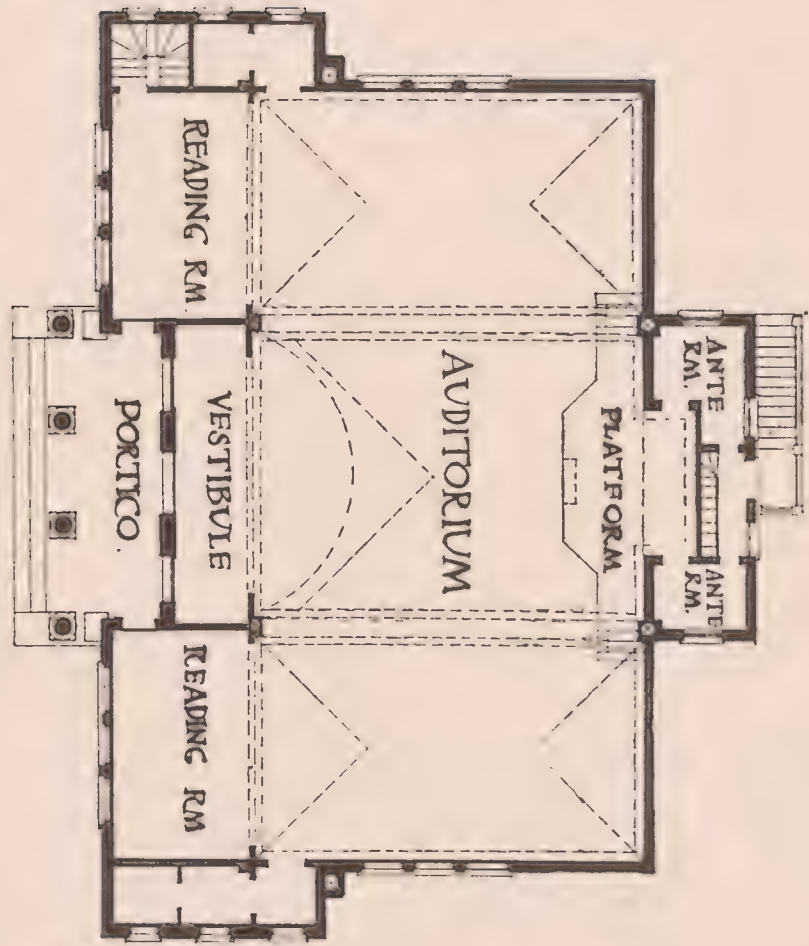
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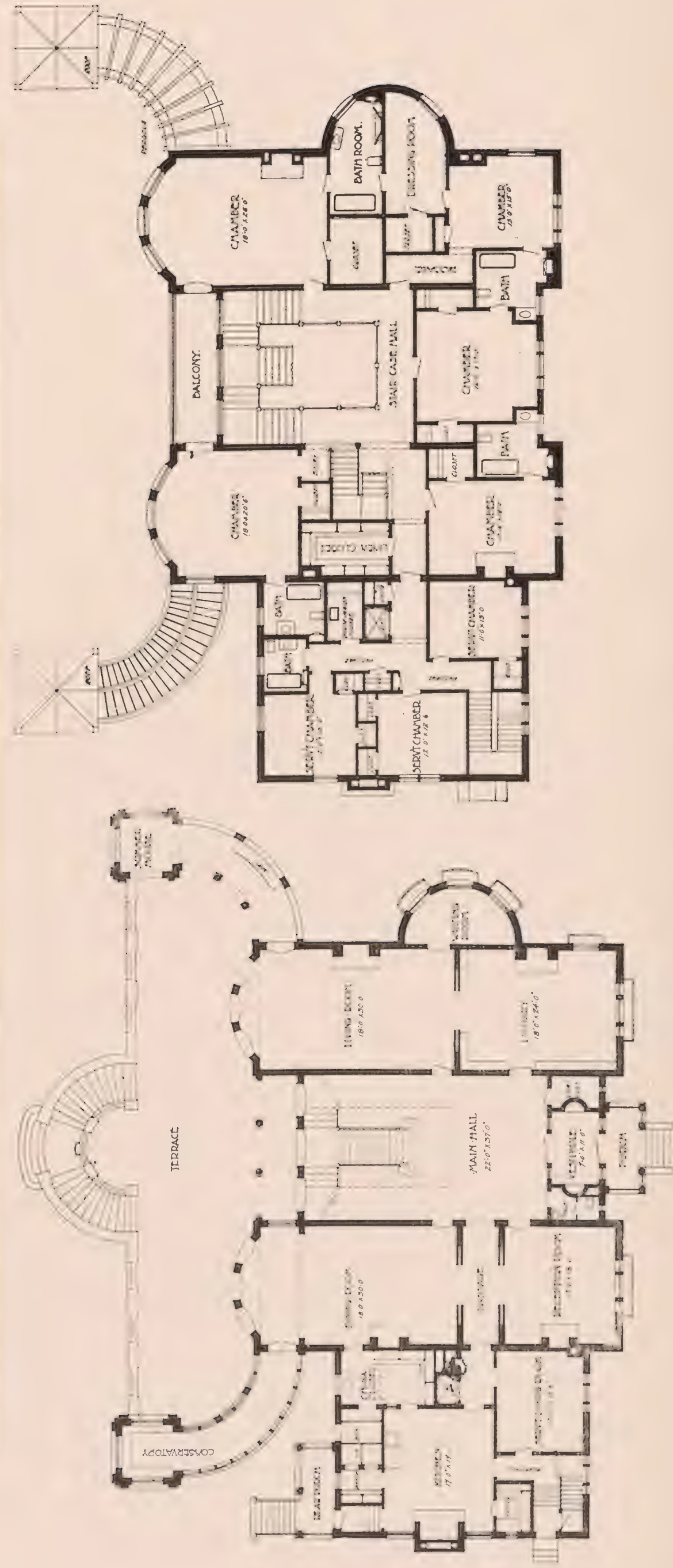


FIRST CHURCH OF CHRIST, SCIENTIST, HIGHLAND PARK, ILLS.
S. S. BEMAN, ARCHITECT, CHICAGO.





RESIDENCE OF J. B. FORD, DETROIT, MICH.
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WASHINGTON A LOGICAL ART CENTER

BY GLENN BROWN, ARCHITECT, SECRETARY AMERICAN INSTITUTE OF ARCHITECTS

WASHINGTON CITY should be the most important center in the United States for the Fine Arts, architecture, painting and sculpture.

The question of art was considered one of the essential elements in the design of the new city. The character of the landscape, the site and style of the buildings and the possibilities of vistas were carefully considered in the preparation of the original plan, and the scheme evolved by L'Enfant with General Washington's supervision and advice is acknowledged by the authorities of the world as the most artistic plan for a capital city.

Presidents Washington, Jefferson and Madison personally interested themselves in securing artistic expression from the most skilled men in their professions without reference to political or personal preference, to design the landscape and buildings. A dark period in Federal Art began about 1850 and continued without a ray of light for nearly fifty years. This depreciation was due partly to the presidents of the period having little interest in, and knowledge of, the value of art, but this dark period was more largely due to congressional legislation, which ignored the noble plan left them by the father of the Republic. In legislation Congress ignored the fact that the treatment of the city should be in accordance with the original plan. A composition as a whole was ignored and each individual building and park was legislated upon as an individual scheme and treated without reference to other parts of the general plan, thus producing discord and destroying harmony between the various parts of the composition. Congress has never yet appreciated the necessity of a competent art direction either by a commission or by a bureau. It has never appreciated the value of obtaining the most skilled artists for Federal work, but has frequently legislated so as to place most important commissions in the hands of utterly incompetent craftsmen. We owe the early presidents of the United States credit for the good which we may have in Federal Art. President Roosevelt is the first president in fifty years who has taken an interest in the subject, and his influence for good is already being felt. Senator McMillan appreciated the unfortunate growth of the city with discord and not harmony between its related parts, and without a general artistic composition. At the suggestion of the American Institute of Architects, he, by a resolution of the Senate, appointed the Park Commission to report on the future artistic development of Washington. The report received the unqualified endorsement of cultivated people in Europe and America. The Commission presented a scheme including the salient features of the plan of L'Enfant and Washington, and a development of new portions of the city in harmony with the original scheme. The following structures are already being erected in conformity with this report: The Union Station, the National Museum, the Agricultural building, the office buildings for the Senate and House of Representatives, the Municipal building, the Home of the Daughters of the American Revolution and George Washington University buildings. The continued development of the city on the line suggested will make Washington the most at-

tractive city in the world from an artistic standpoint. Its buildings, parks and statuary will form an art composition in which the various parts will be in harmony, a place of residence worthy of, and attractive to all who have artistic perception.

The opportunity for good which lies in the hands of the Federal Government is broad and far reaching. It should be the agent for disseminating the ennobling, educative and economic influence of art among the people through the artistic character of the buildings, parks, statuary and paintings, which are constructed or authorized by the Federal Government. It may be difficult to appreciate the good influence upon the people. The most virile races, those whose influence upon the world has been the most lasting, are the nations where art flourished and their art productions are now among their most precious records, Egypt, Assyria, Greece, Rome, France, Japan are all nations most noted for their art, and nations noted for their strength and virility.

We, as a nation, are spending enormous sums on works which should be art productions, and the early examples of the Federal Government can be commended for their merit; there is now a decided revival of interest in the character of the work being executed under the auspices of the United States. How best to crystallize and make continuous this tendency is a serious question for our officials to consider. I feel that the importance and value of this movement will best be brought to the attention of Congress and they will be more able to appreciate the interest of the people in the subject if the various national art associations should locate their principal offices in the national capital.

In 1900 the American Institute of Architects established its permanent headquarters in Washington, and through its endeavors much has been accomplished for the good of national art. The Tarsney Act, under which the Government has secured the services of many of the most capable architects of the country in design, construction and execution, and under which many Federal buildings are being erected, was made a law by the efforts of the Institute. This society secured the appointment of a park commission to report on the development of Washington City; with the assistance of those interested in art prevented the remodeling of the White House and extension of the Capitol on lines which would have destroyed their beauty; and preserved the Mall, by demonstrating that an improper location of the Agricultural building would destroy the future artistic treatment of this park.

Under the Incorporation Act March 3, 1905, the American Academy in Rome locates its principal office in Washington. The American Academy in Rome is a post-graduate school which will select by competition the most capable applicant each year, in architecture, sculpture, painting and music, and send them to Rome. In Rome the students will be able to perfect themselves in their art, under the most favorable auspices and surroundings. The Academy has been endowed by generous Americans, and has purchased the villa Mirafiore, where the students will collaborate together. From the talented young men who

secure this prize, the Government may obtain artists capable of executing future work of the highest character.

Thus two important national associations have established their principal offices in Washington, and it would appear that it is only a question of time when such societies as the National Academy of Design and the National Sculpture Society will follow the example of the Institute and the Academy.

The Public Art League is a national association organized in Washington to secure an Art Commission who will have authority over the Art interests of the Government. The work of this society has to a certain extent been accomplished in the ruling of President Roosevelt, that "No buildings shall be erected in the future by any of the executive departments without consulting with the Park Commission as to their location and design."

The future seems bright for Federal Art when President Roosevelt's interest induced him to give expression to the following sentiments at the annual dinner of the American Institute of Architects: "Whenever hereafter a public building is provided for and erected, it should be erected in accordance with a carefully thought-out plan adopted long before, and it should be not only beautiful in itself, but fitting in its relations to the whole scheme of the public buildings, the parks and the drives of the district. * * * Now I most earnestly hope that in the national capital a better beginning will be made than anywhere else; and that can be made only by utilizing to the fullest degree the thought and the disinterested efforts of the architects, the artists, the man of art, who stand foremost in their professions here in the United States, and who ask no other reward save the reward of feeling that they have done their full part to make as beautiful as it should be the capital city of the great Republic."

It is unfortunate that the manifest feeling and desire of the people has not yet been reflected by Congressional action. While President Roosevelt has issued an order to the executive departments, requiring them to consult with the members of the Park Commission before locating or settling the character of design for the buildings to be erected under their direction, although a most marked appreciation and a most positive gain, the order does not include the treatment of the parks or the location and character of statuary; therefore it does not control the whole composition.

What is needed is legal action, giving the commission power over questions of Art so as to assure the treatment of each in harmony with the other, and so that the whole composition may be beautiful.

There are many branches of Federal work which legitimately come under the Fine Arts, which should be under the jurisdiction of one department. The cabinet departments each have their architectural branch, in some cases two under the same official. The parks in the city are under the jurisdiction of various officials, no two working on the same principles, each treating his park as an individual spot. Different departments or branches of departments design bridges and architectural embellishments, while others do the planting of trees and others of flowers. The statues and monuments are selected by various committees and associations without reference to what has been or will be done by other committees. These committees have usually shown their utter incapacity to judge of good Art.

Thus it will be seen that in the Federal Government one department is duplicating another, each official working at cross purposes with the other. No large corporation would tolerate such methods in the conduct of their business affairs.

The most serious need is a capable artistic head who will have charge of the art interest of the country in the work executed by the Federal Government.

It would be a sensible and economical business arrangement to have the artistic affairs of the Federal Government managed by one commission or bureau. There would then be system and harmony in the completed work and the educative effect upon the people would be felt and appreciated.

To illustrate the unfortunate effects of this want of system without a capable artistic head, it may be well to call attention to a few of the works which are now in progress and which if not brought into harmony at an early date it will be impossible to rectify. One of the most important recommendations by the Park Commission was the securing of the ground from Rock Creek to the crest of the hills. In no case was a large area required to obtain this end, by such an acquisition some of the most beautiful natural landscape would be assured. No action was taken and now real estate speculators have, in many instances, destroyed the natural beauty of the park by high red clay embankments, and in their work of demolition have ruthlessly killed trees of hundreds of years growth, have filled with a careless hand picturesque rivulets and cascades, where the water dashed over hoary boulders gray with age.

Rock Creek, where it extends from the Mall on the Potomac river to Rock Creek Park, has for more than half its distance a valley of great beauty, and this is the natural link between the Mall system and the outlying park system. It is easy of treatment, or was easy a year or two ago, with parked drives and walks making prominent a beauty spot between Georgetown and Washington. Now this valley is fast being turned into a dump heap. Where Massachusetts avenue crossed the creek it was particularly beautiful. The engineers in charge of the bridge by which Massachusetts avenue crossed over the valley have built a large culvert. The approaches destroying the beautiful landscape by taking the form of a railroad embankment across this beautiful valley. A bridge spanning this space designed by capable hands might have added to the natural beauties of the scene. Drives and walks would follow the natural contours and pass under arches of the bridge. Many beauties of the valley may yet be saved to the people if prompt measures are taken to systematize the government art work.

Retaining walls, bridges, culverts and similar architectural accessories are being constructed within Rock Creek and other parks without proper artistic direction and with features detrimental to the beauty of the landscape.

In Fort Myer, which crowns the hill near Arlington, many expensive buildings have been erected to accommodate the cavalry troops which are quartered there. This is one of the show places of the capital city with a natural site of great beauty. No general plan has been studied, the buildings and landscape form an incongruous group without beauty or artistic expression in their general arrangement and ugly in their details. The riverside park, reclaimed by filling the Potomac flats, affords opportunities for broad water and landscape effects with its relations

to and contrasts with the formally treated Mall, which in capable hands is unlimited. The engineers have already commenced building roadways without having adopted a general system of treatment as a whole and without consideration of the future development of the Mall, memorial bridge and other vital points. This important measure could be carried in the proper direction if there was a bureau or commission of Fine Arts. The Zoölogical Park is another of the branches of the art development of our Capital, which is progressing without having formulated a definite scheme on which it shall grow. The Palisades of the Potomac are being rapidly destroyed by the quarries which are now being developed along this stream.

The parks of the city in charge of the Commissioner of Public Buildings and Grounds, the Secretary of Agriculture, the Smithsonian Institution, the Superintendent of the Capitol, and the District Commissioners are in no instances in the hands of a landscape architect; what harmony of treatment can be expected from these various individuals?

Probably enough has been said to call attention to the urgent need of a branch of the Government with artistic training, who shall have charge of artistic development of Federal work in the future.

ART AS AN EDUCATIONAL FORCE AND A SOURCE OF WEALTH.*

THE object of the National Sculpture Society is to spread the knowledge of good sculpture; foster the taste for, and encourage the production of, ideal sculpture for the household and museums; promote the decoration of public and other buildings, squares and parks with sculpture of a high class; improve the quality of the sculptor's art as applied to industries, and provide from time to time for exhibitions of sculpture and objects of industrial art in which sculpture enters.**

The exhibitions of the Society have had an educational influence in many directions, but a more important object lesson has come from the great World's Fairs of Paris and this country, where sculpture, monumental, ideal and historic, forms a very large element in the artistic arrangement. If, then, sculpture is so indispensable to the temporary buildings and grounds of a fair, how much more important it is to the permanent public buildings of our cities. The development of our country has been so rapid that the public buildings of the past could be considered only temporary structures; but now in this generation we are building for the future, and we should have a care that these permanent monumental buildings should be artistically worthy of, and historically expressive of, the best our civilization represents. Therefore the time now seems ripe for arousing the attention of the public to the educational function of sculpture. Thus far this item of education has been relegated to the museums, and this does not seem to be sufficient.

Let us consider for a moment the public buildings of Europe. What makes Florence so interesting? At every turn you meet some building whose intrinsic architectural excellence is enhanced by ornament; the facade of the Duomo, rich with rare marbles and statues; the Baptistry

opposite, not important as an example of architecture, yet with a world-wide reputation on account of its wonderful bronze doors; the Loggia di Lanzi, that exquisite little open-air museum of sculpture; the Uffizi, with its arcades and logias crowded with statuary; even the grim old palace of the Signoria softened by the neighboring fountains.

In Paris we have the Hotel de Ville, profusely enriched with sculpture and mural painting by the best artists of France, and the Opera, similarly treated, while every city of France has one or more public buildings in which artistic enrichment is a dominating feature, and Germany's late advance toward a leading place among nations is nowhere better shown than in the artistic development of Berlin, which is so rapidly becoming one of the most completely and beautifully decorated cities of the world.

While the function of a building should be manifest in the lines of its architecture, yet on sculpture and painting must it depend for the interpretation of its meaning and purpose to the people.

In the accessories of our public buildings quite as much as in monuments in our streets and public places, the great events of our history should be expressed in enduring form.

The material advantages of a general appreciation of Art will tell upon the welfare of our people, and enter into their daily lives, enriching and ennobling their thought, improving their morals and beautifying the product of their hands in all trades and industries.

The strength of nations is measured by their commerce or their conquests, but the glory of a people is measured by their Art and Literature. In some cases the wealth of a people is measured by their collection of Art.

Italy derives an income of \$50,000,000 per year from the foreigners who live permanently or sojourn for a time within her borders.

Through the encouragement of Art in France, she derives an annual income of \$150,000,000 from the foreigners who are attracted there, or 5 per cent income on three billions.

It is generally acknowledged as indispensable that a proportional amount of the cost of any public building should go for fine marble, rare woods for interior finish and sumptuous furniture, yet the vital lesson of life, to be told only by sculpture and painting, is sparsely treated or neglected altogether. But unless this generous provision for civic dignity is supplemented by its appropriate expression through the fine arts, its effect will be largely lost.

The Art in the Congressional Library was only 7 per cent of the total cost of the building. The decorations of the Appellate Court Building in New York City was something more than 20 per cent of its total cost. The Art of the Hotel de Ville of Paris cost 12½ per cent of the total cost of the building.

We therefore recommend that our Federal and State Legislatures and City Councils, by enactment of proper laws and ordinances, require that of the total cost of every public building, a certain portion thereof, not more than 10 per cent, be expended in Historic Art—sculpture and painting—including stained glass and mural decorations of all classes; and also that of the total cost of municipal government a definite, even though small (say one-half of 1 per cent) appropriation be devoted to beautifying the city by suitable landscape and monumental treatment of its parks and streets.

*Excerpts from an article by Henry K. Bush-Brown, issued in brochure form by the National Sculpture Society. For examples of sculpture see our illustration pages.

**Extract from the Constitution of the National Sculpture Society.

SANITARY ENGINEERING IN THE MODERN OFFICE BUILDING

BY J. PICKERING PUTNAM, ARCHITECT

PART III

IN regard to the partial or total closure of the mouth of the "back vent" pipe by grease deposits, it is not even necessary that one should have had any experience in plumbing work at all to enable him to realize the importance of this item in condemnation of the back vent law. One would have to go back several eras beyond the dark ages to find any one who had not observed how melted grease congeals upon a cold surface and how tenaciously it adheres thereto. The first savage who knew enough to roast his meat over a fire and serve it on a stone was perfectly familiar with these properties of melted grease, and would not have to ask a "sanitary plumber" if it would deposit itself along the walls of a cold waste pipe under a kitchen sink. Let us reason at least as much as the primitive savage and find out why the framers of our plumbing laws ignore these simple lessons in physical science. Every plumber has seen vent pipes fouled by greasy deposits, which often completely close up its outlet and sometimes fill it solid full for several inches beyond its mouth.

It is sometimes urged that these deposits can, from time to time, be removed. Evidently. But in practice this simple remedy is oftener neglected than observed, partly because the inside of the vent pipe mouth is usually rather inconvenient of access; partly because whatever danger there may be from such deposits is seldom announced to the house owner until it is too late; and partly because, as a matter of fact, where a reasonably good form of trap is used a clogged vent pipe is, like a dead Indian, a safer and better thing to have in the house than one which is open and fully equipped for business.

In any case, it is beginning to be understood by students of sanitary engineering who have as much as one eye open that a device intended for protection, which requires more watching than the thing it was designed to protect, affords but a false sense of security, and in this instance often leads to the use of traps which possess no power in themselves to withstand the action of siphonage when the vent pipe becomes inoperative. Therefore, when the public are compelled to back vent all the traps, they are obliged to incur also the expense of using antisiphon traps as well.

Advocates of the back venting of traps will frankly admit that traps having large unscoured areas, often called "cesspool" traps, like the old fashioned D trap, or very large pot traps, are objectionable, especially under kitchen or pantry sinks on account of the accumulation of grease and dirt in these unscoured parts.

Now, the vent mouth opening, being entirely outside of the waterway of the trap, must receive even less scour than any part of the waterway of a cesspool trap. As a matter of fact, the mouth of the vent pipe will clog much more quickly than any part of a cesspool trap, because the warm, fatty vapors are drawn up into the vent pipe and there deposit and congeal more or less grease along its cool sides at varying distances above its mouth, thus adding to the deposits caused by splashing and liquid contact. In short, the mouth of the vent pipe forms an unscoured

"pocket" far more dangerous than any of those other pockets now universally condemned, which constitute the one great characteristic feature of all "cesspool" traps.

Writers on plumbing who advocate "back venting" hold that the simple "S" trap, being self-scouring, is the best to use when protected from siphonage by back venting, and they are fond of illustrating this "excellent" combination by a diagram like our Fig. 4.

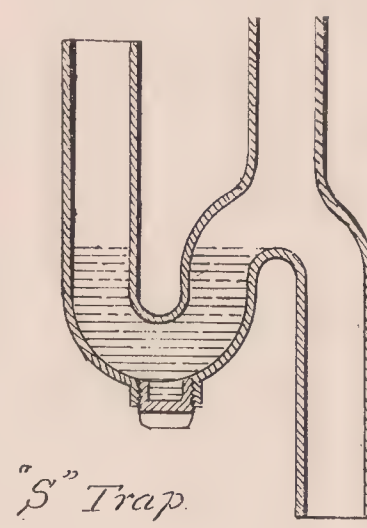


FIG. 4.
SECTION OF A VENTED
"S" TRAP AS DRAWN BY
ADVOCATES OF "BACK
VENTING."

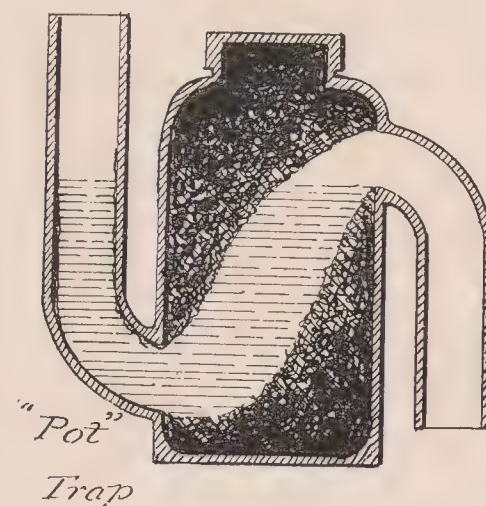


FIG. 5.

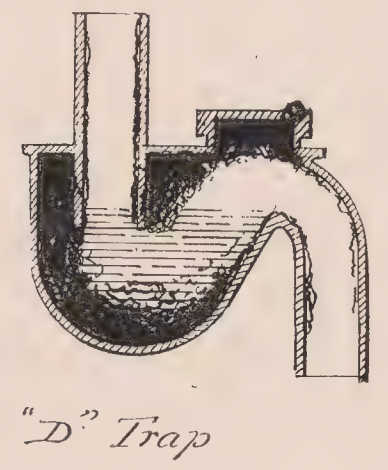


FIG. 6.
OLD FASHIONED
"D" TRAP.

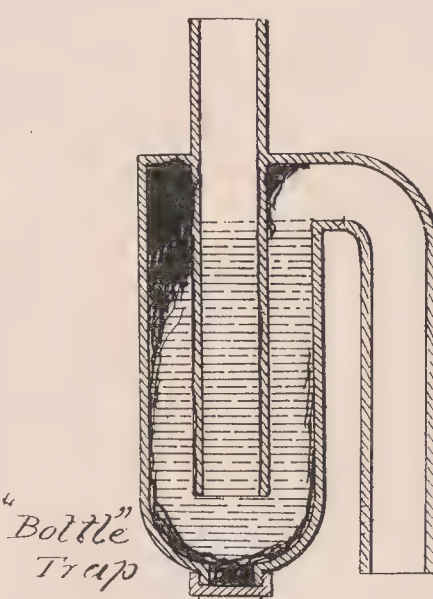


FIG. 7.

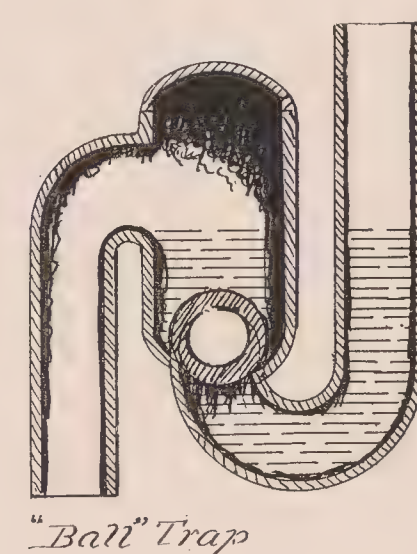


FIG. 8.

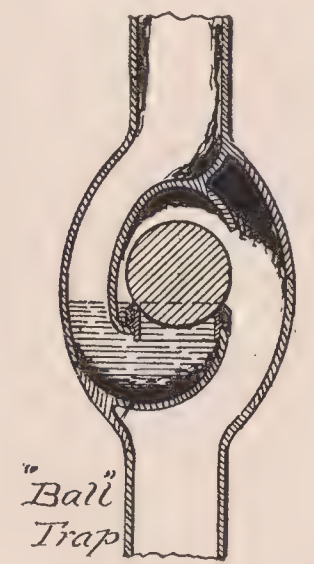


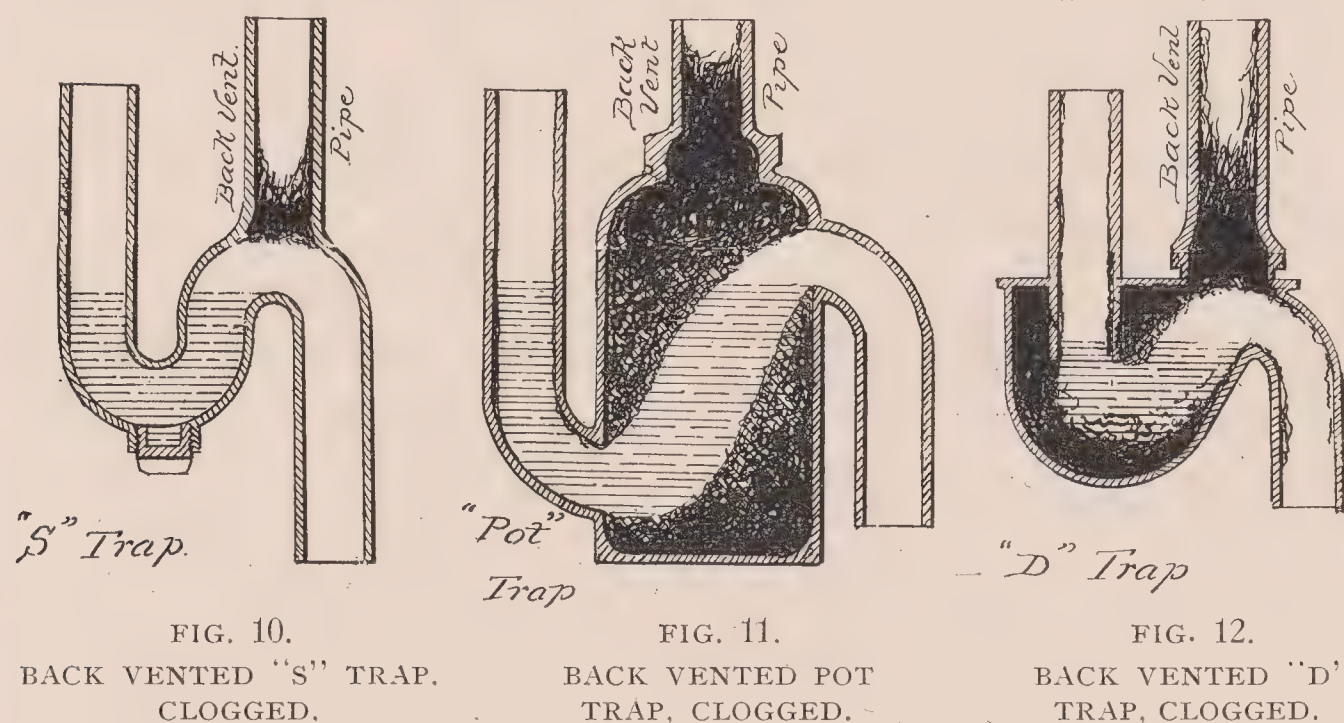
FIG. 9.

They are perfectly right in the matter of the gradual filling up of all unscoured pockets. Why, then, do they so carefully avoid showing this clogging in the mouth of the back vent pipe at the crown of the "S" trap? Under what law of physics or chemistry, or by what miraculous intervention or friendly influence has this, the most unscoured pocket of all, escaped contamination altogether, when all the other pockets shown in the cesspool traps have been packed full? And why do they always entirely avoid showing the "back vent" pipe in their representations of the befouled "cesspool" traps when they drag them out to be soundly and very properly lashed by their criticisms?

A truthful representation of these various traps should show them equipped with the back vent pipes required by the present law, when they would appear as in Figs. 10 to 14, inclusive.

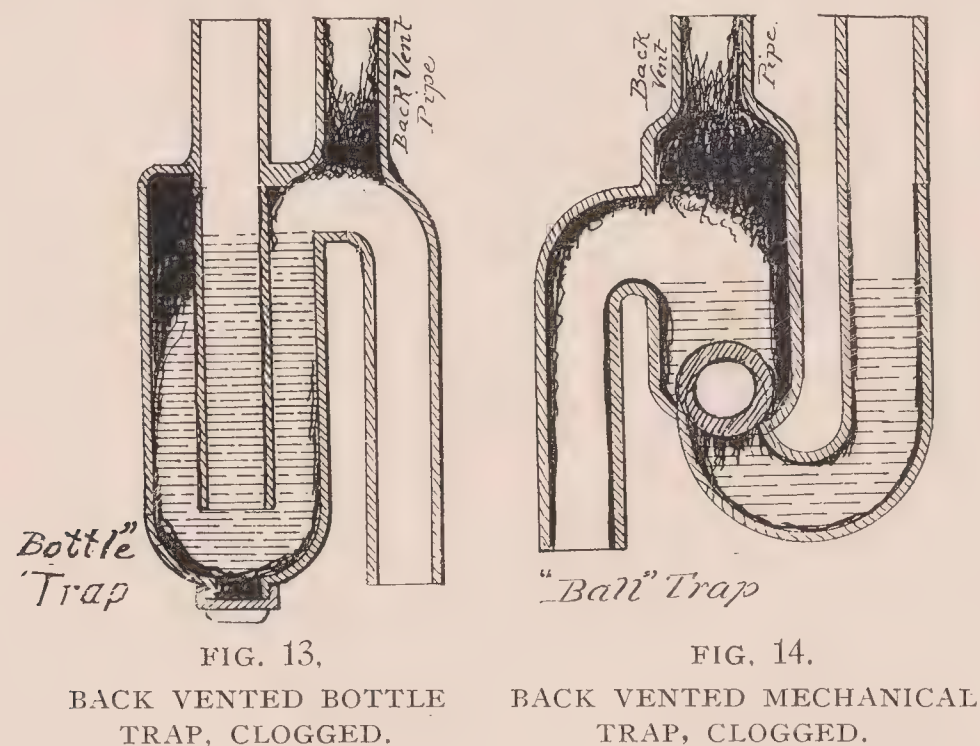
The public have been hoodwinked so long by the misrepresentations of these writers that we sometimes feel like doubting the famous assertion of Abraham Lincoln that you can not deceive "*all the people all the time.*"

For an intelligent nation like ours to have swallowed the "back vent" humbug for a quarter of a century in this progressive age seems dangerously near a refutation of the saying we have always taken such pride in quoting.



The best and perhaps the only way to prevent grease accumulations in traps and throughout the entire waste pipe system is to require the use of fixtures everywhere constructed on the principle of the flush tank.

Figs. 15 and 16 show kitchen sinks so constructed, the first being the invention of the late Colonel Waring, and the second is an improvement devised by Gerhard. These devices have for their characteristic features a large flush pot attached to the sink, as shown in the section. These flush pots hold back everything, water and all, until they are filled. The contents, amounting to six or seven gallons, are then discharged—the whole volume suddenly—with such scouring force as to prevent adhesion to the

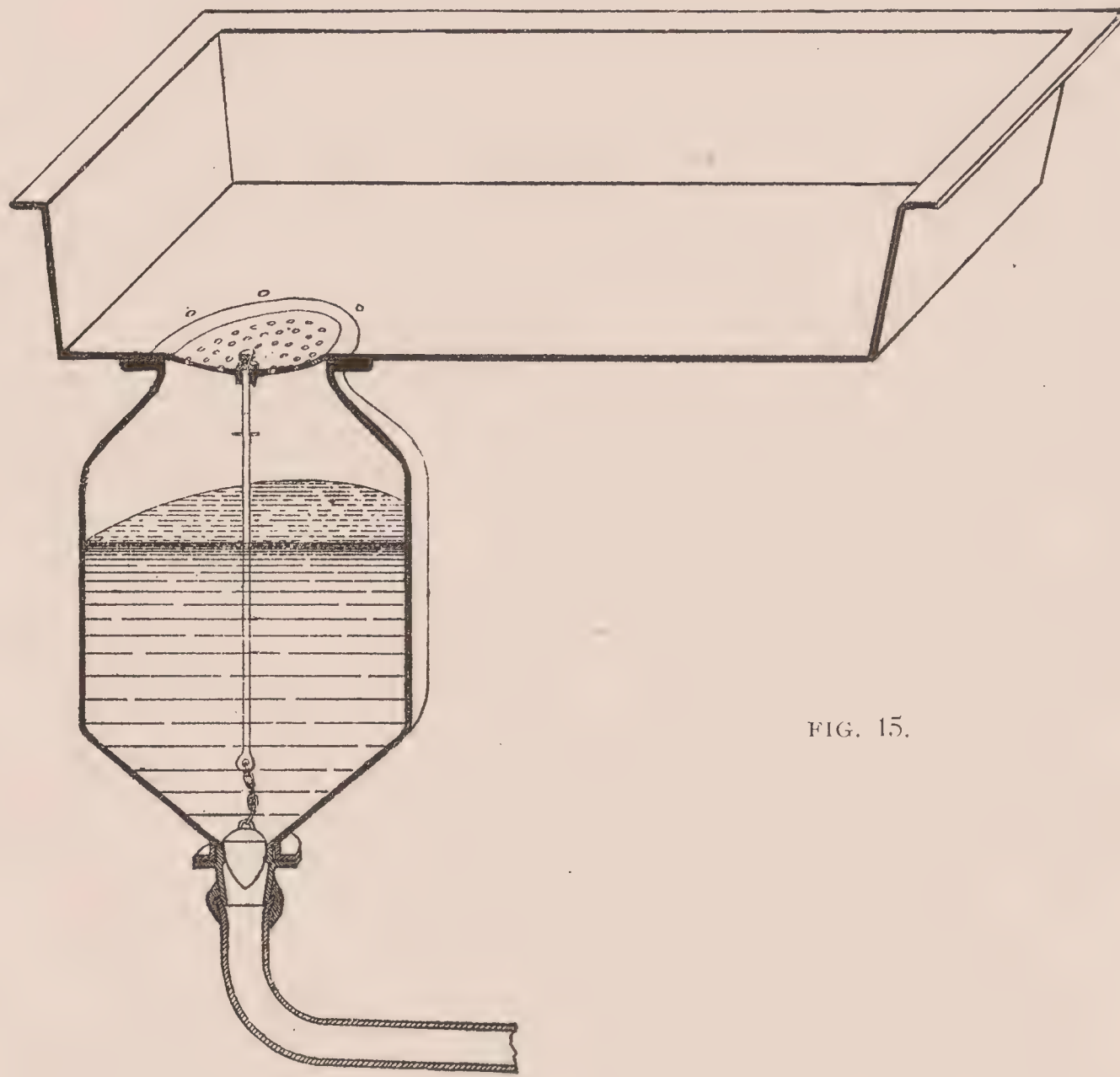


walls of the waste pipe. The grease condenses in the flush pot before its discharge and is rolled into balls on its way to the sewer instead of entering in a melted state, as in ordinary sinks, and congealing upon the inner surfaces of the traps and waste pipes. The improvement made by Gerhard is in having the flush pot constitute a serviceable part of the sink itself, in which may be washed large utensils, pots or dishes, requiring deep water.

Fig. 17 is a still further improvement of my own. Its action is entirely automatic, it being, as shown in the drawing, constructed on the principle of the Field's intermittent flush tank. The flush pot instantly discharges itself automatically the moment the deep part of the sink fills to the overflow.

The automatic discharge is really essential in practice, because the average cook is, unfortunately, neither a sanitarian nor a philosopher. Nor does she disturb herself about the distinction between the friendly bacteria of decomposition and the criminal classes of germs, those

of putrefaction, and she does not care about the bacteriological and chemical constitution of the air of sewers. Consequently, she is too apt to forget all about operating the outlet plug, and there have been instances where this has led to a disastrous overflow of dirty water over the floor, and to a simultaneous outburst of language of similar complexion on the part of the irate cook, followed by an unceremonious discharge by her of the offending plug and its consignment for good and all to the demnition bow wows. And it is, therefore, best to have the ap-

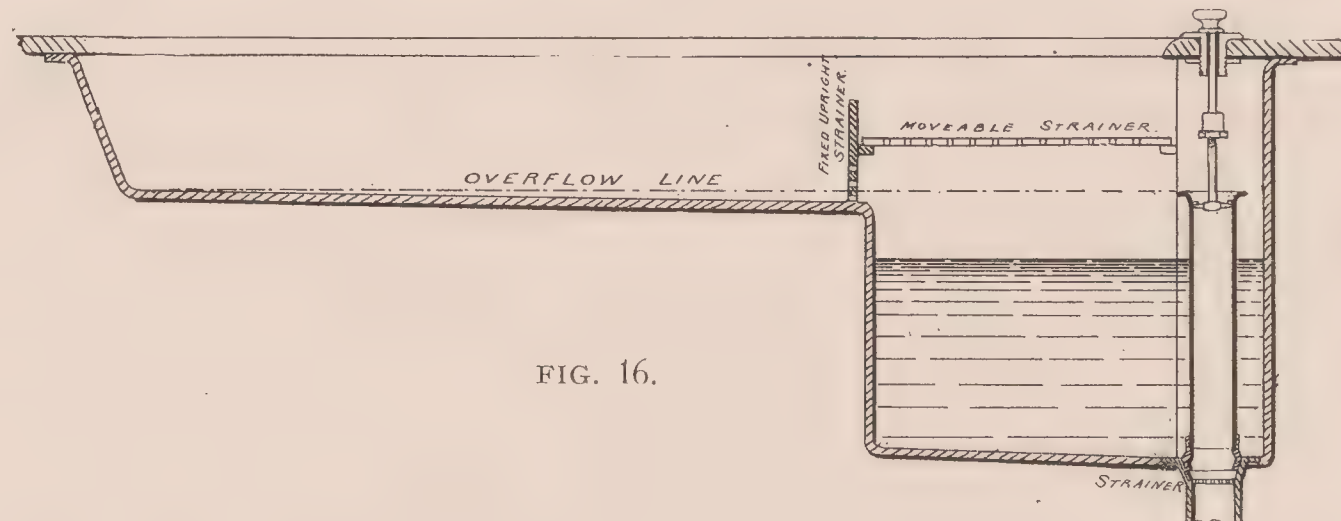


paratus entirely automatic. I have said that the use of these automatic flushing devices would keep the waste pipes well scoured out, and prevent the clogging up of the traps. But the vent pipe is not reached by this scour, as I have already explained, and nothing has been so far devised which is capable of keeping these useless appendages free from deposits. Like the vermiform appendix in the human body, they are beginning to be found fit only for the surgeon's knife.

The patents on all those sinks have expired, so that the public can enjoy the free use of them. Their cost need not, therefore, much exceed that of ordinary sinks.

The third self-evident objection to the back vent system which we have mentioned is the loss of efficiency due to sagging, vapor condensation and rust accumulation.

Long lines of vent pipe often sag through faulty laying and through shrinkage and settlement in the building. When this occurs water very soon finds its way to the sagged portion and the vent pipe again loses its



efficiency. The vapor arising from the evaporation of the trap seals and from contact of the air current with the wet sides of the waste pipes condenses against the sides of the vent pipe, especially where it is chilled by passing through the roof in cold weather, and this water of condensation flows down through the pipe, fills the sagged

places and oxidizes the metal. The back vent pipe is not protected from this rusting process by the greasy coating of sewage which collects upon the soil pipe, except near the traps, and is, therefore, more quickly eaten away than is the latter.

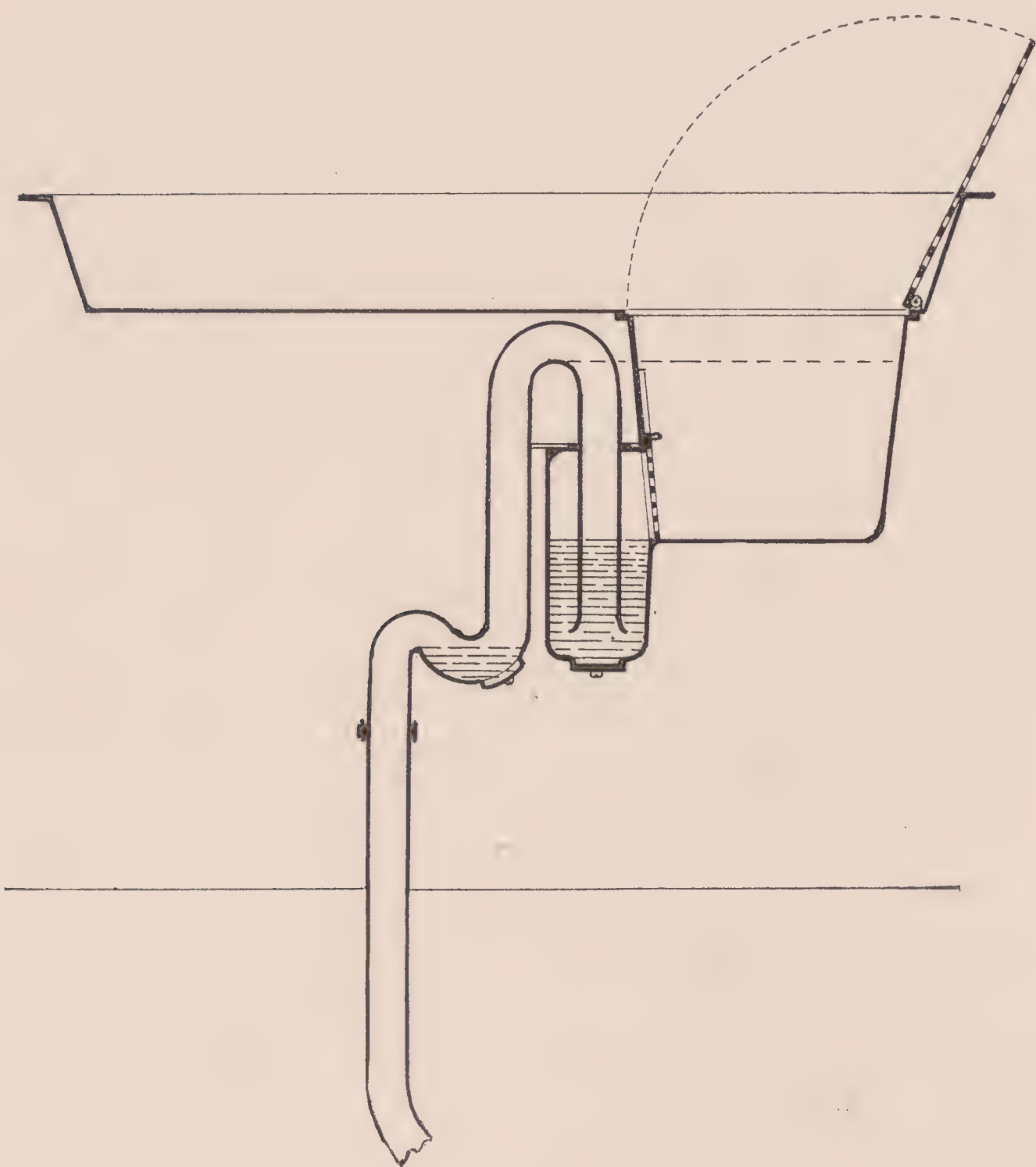


FIG. 17.

In regard to the cost of back venting, it forms a very large percentage of the total cost of plumbing today, and where it is a question of alterations of buildings already completed it may easily constitute the largest part of the expense. Indeed, the cost item is very often entirely prohibitory in alterations. The house owner prefers, in such cases, to forego the advantages of installing a plumbing fixture in a finished house, even though it may be greatly needed for health and comfort, rather than allow several stories to be cut into and perhaps permanently disfigured for back venting alone as the price of attaining it. In a later article will be given estimates of the expense of back venting in the average modern office building.

The remaining self-evident objections to this system to which I have referred are too obvious to require further comment, and I shall therefore pass on to the very important objections requiring apparatus more or less elaborate for their demonstration.

STRUCTURAL STEEL FOR DWELLINGS.

BY F. L. GARLINGHOUSE, STRUCTURAL ENGINEER.

THE article on "Recent Improvements in Building" by Mr. T. M. Clark, in your August number is timely and suggestive.

Steel and concrete are rapidly displacing wood, even in the moderate priced buildings and dwellings. Scarcely a house of any pretensions is now made without the use of some steel beams. Large wooden girders should no longer be considered, as steel beams are generally as cheap and in many cases cheaper.

The substitution of steel beams for wooden joists, with wooden flooring boards laid directly on the steel beams is an interesting problem.

The simplest and most satisfactory way which has

come under our observation is to attach wooden spiking strips directly to the top flanges of the beams and nail the flooring to these strips in the usual way. The strips can be made wide enough to overlap the flanges sufficiently to be secured with lag screws and wrought washers, which will not necessitate punching the beams.

Generally two floors are now laid; the first a rough one, and the second the finished one, preferably of hard wood, maple or oak.

This construction will permit the spacing of steel joists at least three feet centers and usually four-inch $7\frac{1}{2}$ -pound beams will be strong enough for dwellings.

These steel joists should be in as long lengths as possible and run over the steel girders, being secured to them by clips, thus avoiding all punching, and using the steel material just as it comes from the rolls; besides, the joists are stronger, as the principle of continuity comes into play and greatly stiffens the shallow beams. When demand justifies it, no doubt lighter sections of beams and channels will be made. With such sections as studs, thin concrete walls could be made, which would be strong and practically fireproof and durable.

If an outside concrete finish is not desired, brick or other material could be used, leaving an air space between the concrete and exterior material, while a second air space could be had on the inside between the concrete and metallic lath.

Such construction would make a warm, dry and durable house, and at the same time be quite economical.

By using steel ceiling lath, as suggested by Mr. Clark, the floors would enclose an air space, be sound proof and warm.

No doubt the framing of such buildings, as has been outlined, would be greatly simplified by the use of very light sections; say of sections not exceeding one-eighth inch in thickness.

Hand tools could be designed which would easily and rapidly shear and punch such material.

It certainly looks as though the steel frame dwelling is not far distant.

CORRESPONDENCE.

TO THE EDITOR OF THE INLAND ARCHITECT:

Mr. Kelsey's admirable paper on Municipal Improvements in your August number seems to me rather unfortunately misleading where it speaks of the "uniform six-story alignment" of the Paris streets. Mr. Kelsey, of course, refers to the six-story, or, rather, the sixty-five-foot, limitation of the height of the front wall of Parisian buildings, which has certainly accomplished all that he claims for it in securing air and sunshine in the streets; but he omits to mention that the mansard roof may be carried up nearly twenty-eight feet higher; and, as a matter of fact, very few of the new buildings in the fashionable quarters of the city are less than eight stories high, and I know of one which has eleven stories above the street, without exceeding the official limitations. The idea that Paris houses are restricted to six stories in height is very prevalent in official circles here, and has been a serious hindrance to the efforts of architects to secure an amelioration, on the lines followed in Paris, of the conditions of city architecture in this country. It is obvious that a limitation of first-class apartment houses and office buildings to six stories in height would be out of the question for American

cities; while, if it were generally understood that, under the Paris regulations, the roofs and rear walls of buildings may be, and usually are, carried to a height of ninety-three feet above the street, at the same time that all the advantages of limiting the height of the front cornice to sixty-five feet are secured, there might be some prospect of the adoption of similar regulations here. Already the Chicago limit for all buildings is one hundred feet, unless entirely of fireproof construction, only seven feet higher than is permitted in Paris; while, in the fashionable quarter of Boston buildings are now temporarily limited to ninety feet, three feet less than the Paris standard. Mr. Kelsey's authority on the subject is so great that a little further explanation of the matter on his part might be of much use.

Very sincerely yours, T. M. CLARK.

TO THE EDITOR OF THE INLAND ARCHITECT:

Do you know whether there is any possibility that any rolling mill will undertake to supply light steel beams, to take the place of wooden beams, as suggested in your August issue? I have been put on a committee to propose modifications of the local building law. The present law would not allow such construction as the article in your August number proposes; but, if there is any probability that the materials for it would be available, it might be desirable now to secure such changes in the law as would not only permit, but encourage, their use.

Very truly yours, PRACTITIONER.

The inquiry of "Practitioner" is referred to such of our readers as, from connection with the manufacture of steel beams, may be in position to give the desired information.—ED.

ASPHALTUM AND ITS USES*—Concluded.

BY J. S. JACKSON.

THE United States Government in all construction work where it is necessary to use this class of material specify asphaltum for roofing, floors, etc.

When you notice japan work on iron or handsome black surfaces on iron work of all description, you will realize that the base is asphaltum. This speaks for itself.

Many firms are also engaged in what is termed "wood preserving," or in other words, the companies are in the wood preserving business. The material entering largely into their line is asphaltum.

Another use to which asphaltum is largely put is in connection with all classes of insulating and electrical construction. There never has been, and probably never will be, any known material which will so satisfactorily answer the purpose as is now known that asphaltum will do.

I do not wish to tire you by extending this reading over too much of your valuable time, but before closing, I would desire to cite your attention to another special use to which the material can be put. That is for protecting wooden structures or piling, etc., from the attack of the toredo, which exists in tremendous force in the waters of the Pacific Ocean and of many tropical countries.

It is known that ordinary piling in its natural condition will withstand the ravages of this insect but a few months, in many localities less than twelve months, so that the ingenuity of man is taxed to its utmost capacity to provide against the destructive inroads of this small and almost invisible insect.

*Paper read before the Chicago Architects' Business Association, May 12, 1905.

I will call your attention to an instance occurring in San Francisco some eleven years ago. A company in that city built a very large salt water bath house some five miles from the ocean, about half way between constructed a storage reservoir. The bath house on being completed was supplied with a series of wooden steps leading down into the swimming tank from the main floor of the building. It had been presumed by the engineer and architect in charge that on account of the water being delivered to the bath house under very high pressure that it would destroy the toredo to a very great extent.

Some six months after the completion of the tank, the occasion arose necessitating the removal of a part of those wooden steps from the tank. On examination it was found that the toredo had completely honeycombed the wood, and it would have been a question of but a short time when the steps would have collapsed. So the theory of the destruction of these pests under pressure was destroyed.

The steps were all removed and replaced by iron ones. Referring to the storage reservoir, the same was lined with cement concrete, followed with a coat of asphalt. The reservoir being roofed over necessitated the placing of wooden posts to support the roof. These posts, after being set in place, were coated with about one-eighth inch of asphaltum applied hot up to and above the water edge. During my visit to San Francisco in January last, the occasion occurred, on account of the reservoir being empty, by which I personally could examine the woodwork. It was found to be in absolutely perfect condition, the wood being entirely unaffected by the attack of the toredo.

The End.

CHICAGO ARCHITECTS' BUSINESS ASSOCIATION.

At the annual meeting held October 9 the following officers were elected: President, H. B. Wheelock; first vice-president, C. J. Furst; second vice-president, R. C. Berlin; secretary, E. Stanford Hall; treasurer, S. A. Treat; board of directors, G. Beaumont, W. W. Clay, G. L. Pfeiffer, N. S. Patton, P. B. Wight, A. F. Waltersdorf; board of arbitration, F. Baumann, G. Beaumont, W. W. Clay, N. S. Patton, G. L. Pfeiffer, S. A. Treat, H. B. Wheelock. The time for regular meetings was changed to the third Tuesday of each month. An interesting report was presented by Henry Lord Gay for the memorial committee. This consisted of a memorial volume to the memory of the late secretary, Charles R. Adams, and contained a fitting tribute to his personal worth and his faithful, earnest and intelligent efforts on behalf of the association. On the occasion of this annual meeting the association were the guests of the Illinois Chapter of the A. I. A.

ST. LOUIS ARCHITECTURAL CLUB.

The club calendar for 1905-1906 announces the following meetings: October 14—"The Widespread Movement Toward Systematic Park Improvement," Henry Wright. October 28—"The Bond Issue for Municipal Improvement," J. L. Mauran. November 11—Dramatic entertainment, ladies' night. November 25—"Random Thoughts on L'Art Nouveau," M. P. McArdle. December 9—"A Talk on Decoration," based on the criticism of designs to be submitted by the club members, Harvey L. Jones. December 28—Christmas minstrels. January 13, 1906—"Modern Use of the Gothic Style," F. M. Mann. January 27—"Principles of Architectural Design," Oscar Enders. February 10—"A Talk on Structural Engineering," P. J. Markmann. February 24—Dramatic entertainment. March 10—"The Relation Between the Architect and the Landscape Architect," Geo. E. Kessler. March 24—"The Heating and Ventilating Plant for a Department Store," H. H. Humphrey. April 14—Annual meeting.

ARTISTIC HARDWARE.*

FUNCTION, material and process are recognized in these essays, and that recognition is the beginning of progress.

These early attempts may now seem crude enough, but it is to be borne in mind that the vast improvement which has since been effected is not alone an advance in design. It is an advance also in the mechanical execution of the design, in which mechanical labor has arisen into artistic craftsmanship. This advance is dependent upon the co-operation with the artistic designer of an enlightened manufacturer, who is willing to take trouble to secure better results and to make expenditures upon experiments, and the process takes time as well as trouble and money.

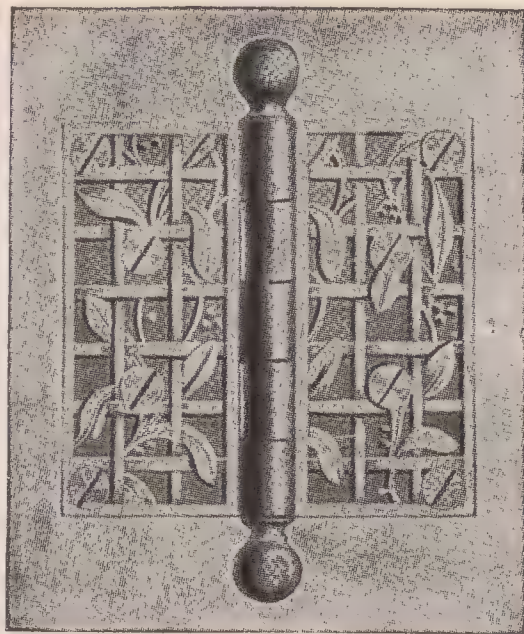


ABOUT 1880.

Undoubtedly, however, the main stimulus to the Renaissance, or, rather, the "Naissance," in this country of artistic handicraft in this branch, as in so many other branches, was the Centennial Exposition of 1876.

The notion that the general design of a dwelling might be carried into its details and fittings, so that all the parts should be "of a piece," was practically new to most visitors.

Only in churches and public buildings, especially in churches, had it been attempted heretofore, and even in these it had been very imperfectly performed. It was precisely in the particular of metal fittings that the shortcomings were most manifest, and this for the reason that the architect had not had the coöperation of the manufacturer. In masonry and in woodwork the designer could secure the execution of his design. But in cast metal the cost of a special set of castings for an ordinary dwelling house or commercial building was quite prohibitory. The architect, even when he was consulted, was forced to limit himself to what could be found "in stock." As there was nothing there that was exactly suitable to his purpose, he was forced to abandon the attempt to make these fittings a positive enhancement of the effect of his work, and, taking refuge in the plainest and simplest objects that could be had, to content himself with the humbler attainment of mere inoffensiveness.



ABOUT 1884.

The first essays in the direction of making the hardware of a house conform to its furniture and fittings were not very successful, for the reason that they were experiments in a passing fashion. The Gothic revival was at that time in full possession of the architectural field in England and commanded also the sympathy of the most thoughtful and progressive American architects. But the attempt to apply the principles of Gothic art to furniture constructed by modern methods had resulted only in what was called "Eastlake furniture," which was even then suspected and is now generally recognized to be ugly and cumbrous. The Eastlake hardware was an improvement upon what had preceded it, in that it was designed with reference to the materials and the process employed, but its forms failed to commend themselves as beautiful or appropriate, and now appear hopelessly antiquated. Nevertheless, in so far as they proceeded from a real consideration of material and function, they contained the germs of progress.



ABOUT 1887.

*Written at the author's suggestion, by the well known architectural critic, Mr. Montgomery Schuyler, of New York, and reproduced by permission from "A History of Architecture in New York," 1898.

*An article forming part of "A Treatise on Locks and Builders' Hardware," by Henry R. Towne, president of the Yale & Towne Manufacturing Company, and past president of the American Society of Mechanical Engineers. John Wiley & Sons, publishers. Price, \$3.00. It is the intention of the publishers of the INLAND ARCHITECT to publish other selections from this work. The book is profusely illustrated and contains more than 1,100 pages, 4x6½ inches.

ASSOCIATION NOTES.

CHICAGO ARCHITECTURAL CLUB.

The membership and finances are in very satisfactory condition. The attractive rooms of the club are visited daily by numerous members and guests. There have been recently on exhibition the prize designs in the Chicago court house competition, and the drawings in the Architectural League of America competition for the two scholarships of the Harvard University. These scholarships were awarded to Eugene L. Plietsch and Frank G. Dillard, both of St. Louis Architectural Club. At the meeting of October 2d a lecture was given on Reinforced Concrete by L. J. Mensch. The lecturer treated the subject broadly and practically and to the benefit of those in attendance.

ILLINOIS CHAPTER A. I. A.

The adjourned annual meeting was held October 9. The special business was the election of officers, which resulted as follows: President, Irving K. Pond; first vice-president, George C. Nimmons; second vice-president, A. F. Woltersdorf; treasurer, W. A. Otis; secretary, P. B. Wight. There was extended discussion of the interpretation placed upon a State law by which no projection, entrance, course nor cornice, was allowed beyond the lot line. This discussion was participated in informally by members of both the chapter and business association present. The meeting passed a resolution recommending the appointment of a committee from each association represented. These two committees to act jointly to secure full data and legal decisions with the view to such action by the associations as seems advisable.

AMERICAN INSTITUTE OF ARCHITECTS.

The volume containing the report of the proceedings of the Thirty-eighth Annual Convention of the A. I. A. at Washington, January 11, 1905, just issued, is a remarkably full and complete account of that notable meeting. The illustrations embrace a portrait of the president, W. S. Eames, and numerous maps in colors in illustration of the comprehensive paper on Municipal Improvement by Frank Miles Day. The editor, Secretary Glenn Brown, has omitted nothing of value.

MOSAICS.

Chicago School of Architecture. Home Traveling Scholarship. In the preliminary competition for the \$250 Home Traveling Scholarship, the following were chosen by the jury to go into the final competition: Robert Layer, Carroll J. Johnson, Arthur Knox, Edd A. Ruggles, G. A. Livermore.

OUR ILLUSTRATIONS.

High School Building, Oak Park, Ill. N. S. Patton and Robert C. Spencer, associate architects. Perspective, elevation, plans and details.

Public Library, Grand Rapids, Mich. Shepley, Rutan & Coolidge, architects.

First Church of Christ, Scientist, Highland Park, Ill. S. S. Beman, architect. Exterior and plan.

Paul-Mont Apartment Building, Chicago. S. N. Crowen, architect. Exterior and plan.

European Sculpture, a double sheet in illustration of paper, "Art as an Educational Force and Source of Wealth," by Henry K. Bush-Brown.

New Passenger Station of the Denver & Rio Grande Railroad at Grand Junction, Colo. Henry J. Schlacks, architect, Chicago. Perspective, elevation and plan.

A City Pumping Station, first prize design, A. L. A. scholarship competition, Harvard University, 1905. Eugene L. Plietsch, designer, St. Louis.

Revised Design, Cook County Court House, Chicago. Holabird & Roche, architects.

Residence of W. H. Lake, Chicago. George W. Maher, architect. Exterior, views in dining-room, drawing room and hall.

Residence of John B. Ford, Detroit, Mich. A. W. Chittenden, architect. Exterior and plans.

Residence of I. Cochran, Los Angeles, Cal. Train & Williams, architects.

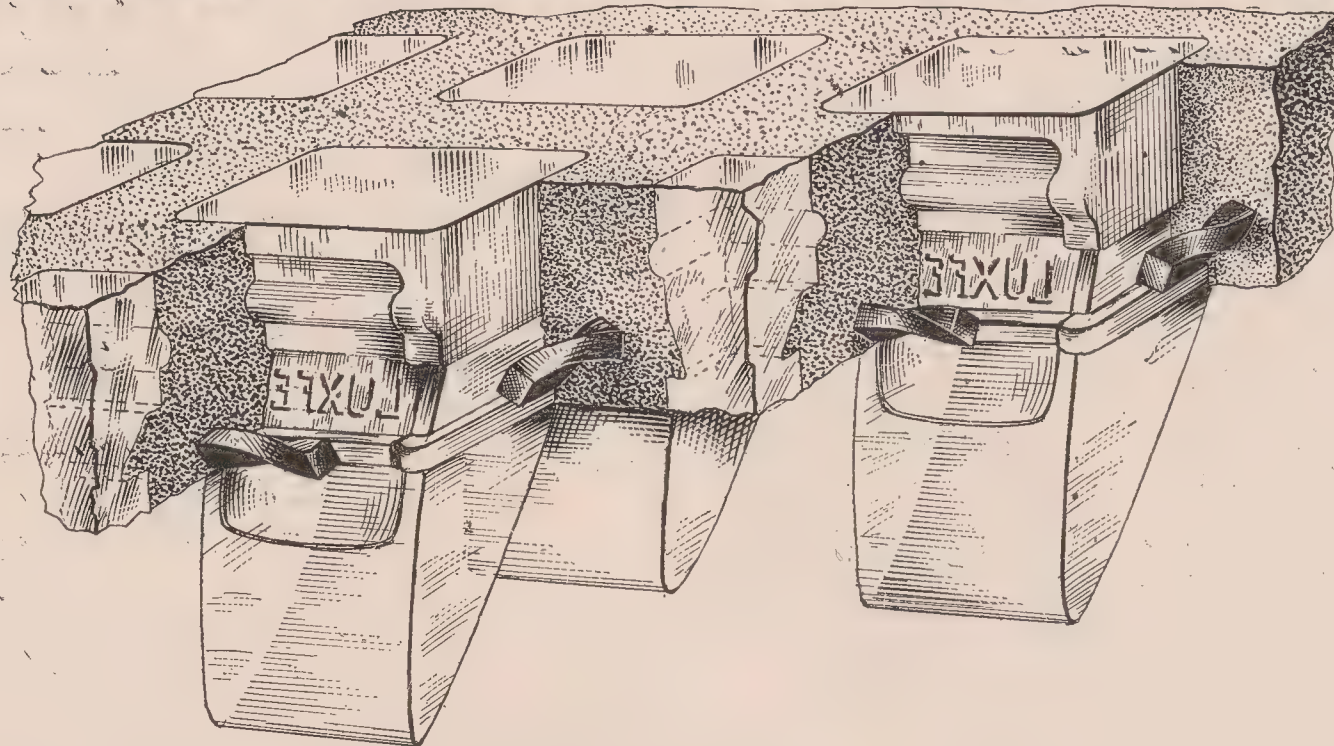
Residence of Marcus Warth, Avondale, Ohio. Boll & Taylor, architects.

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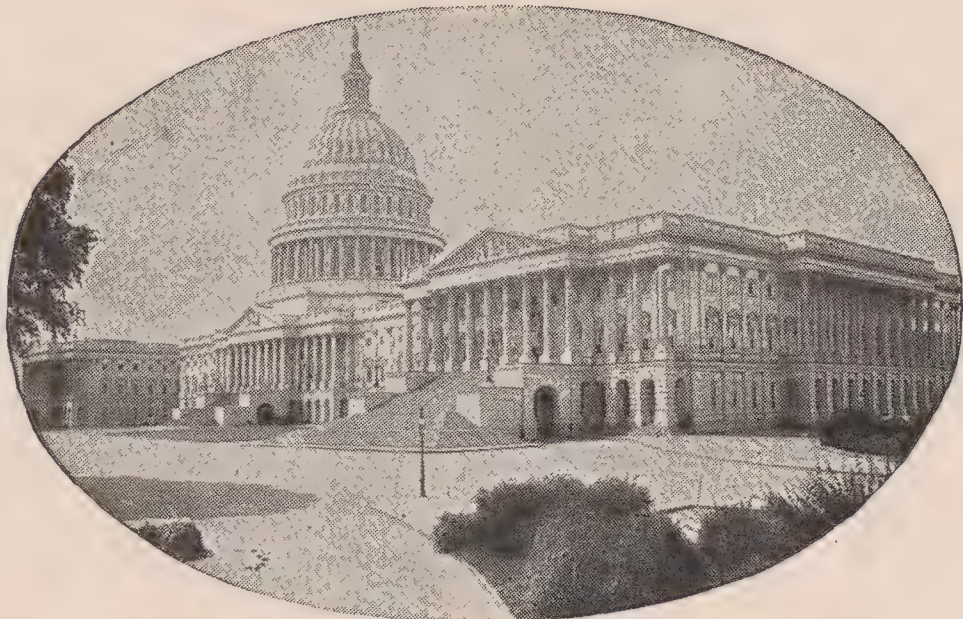
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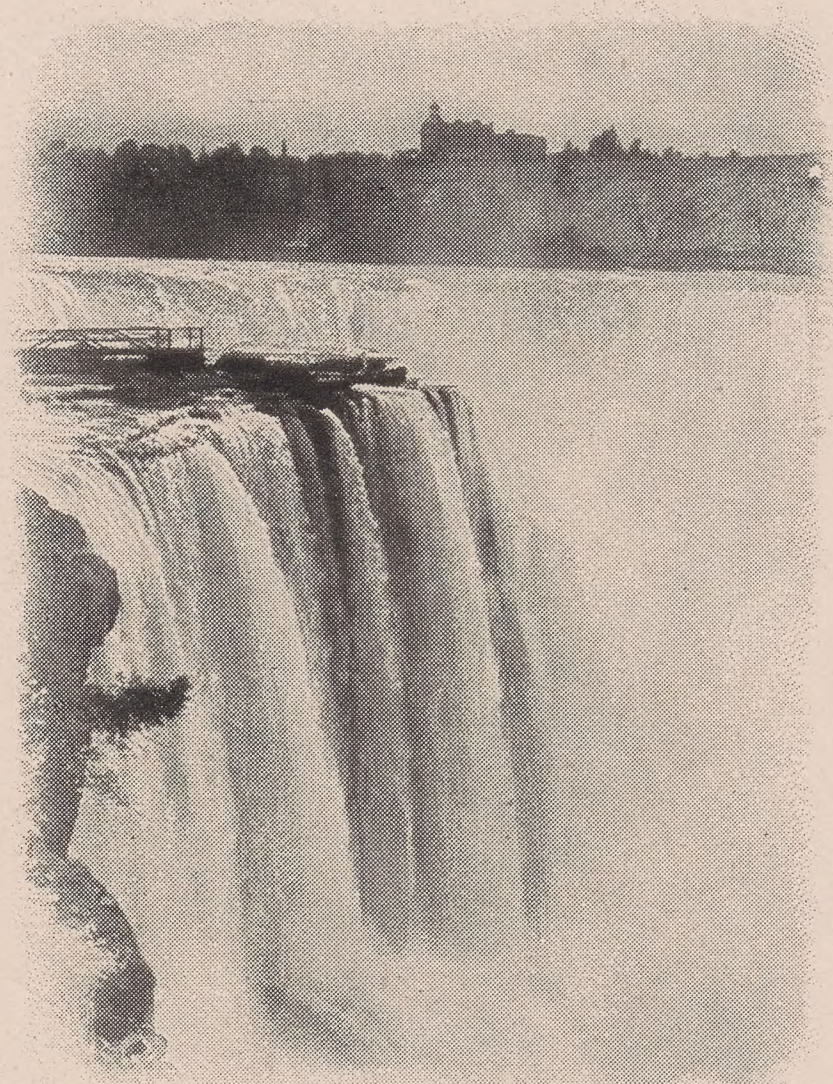
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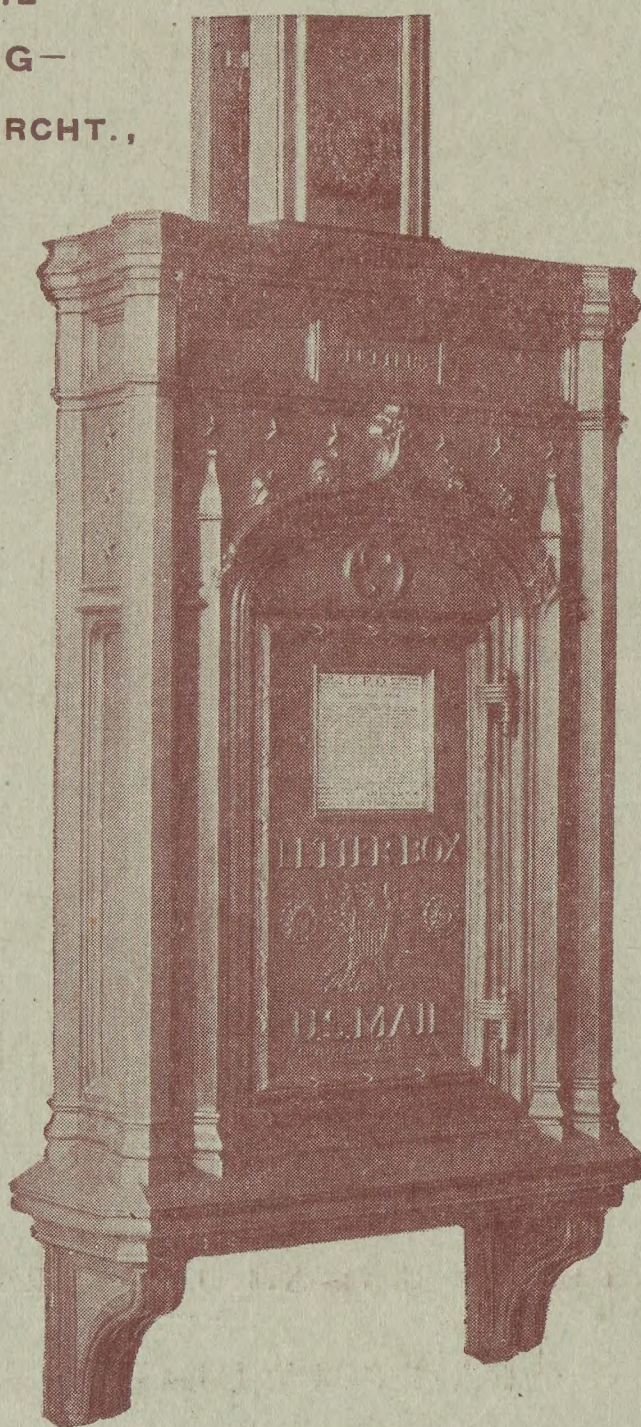
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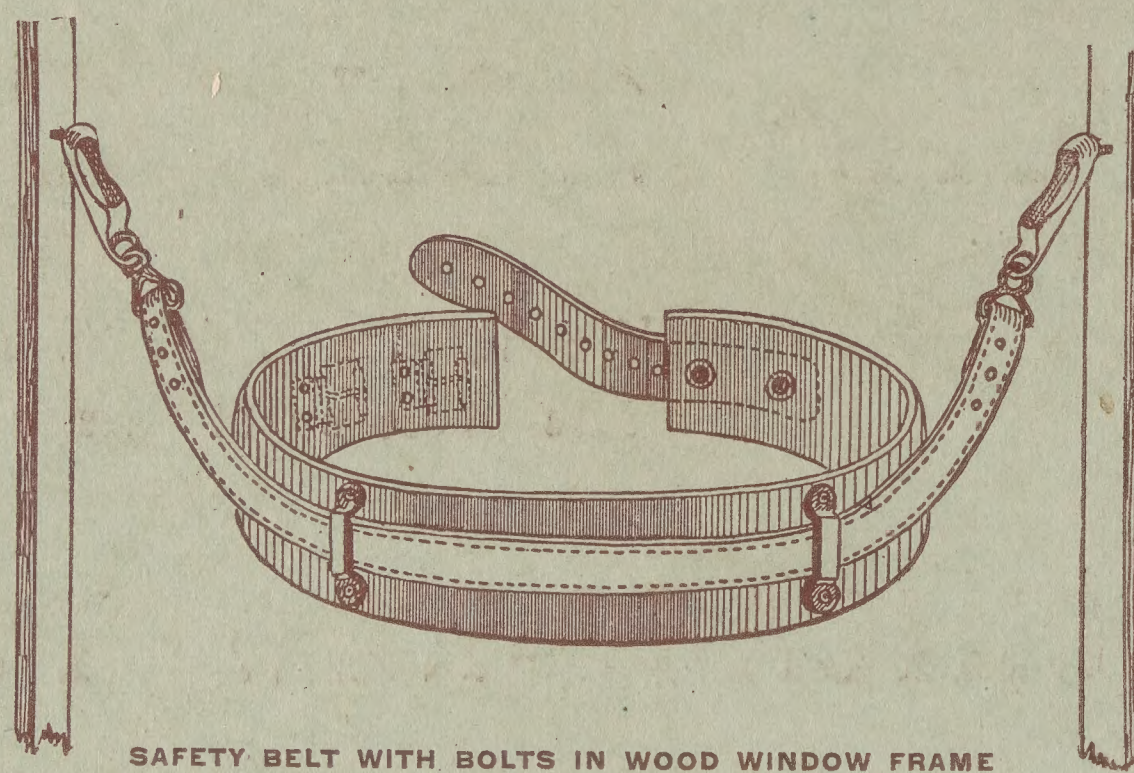
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